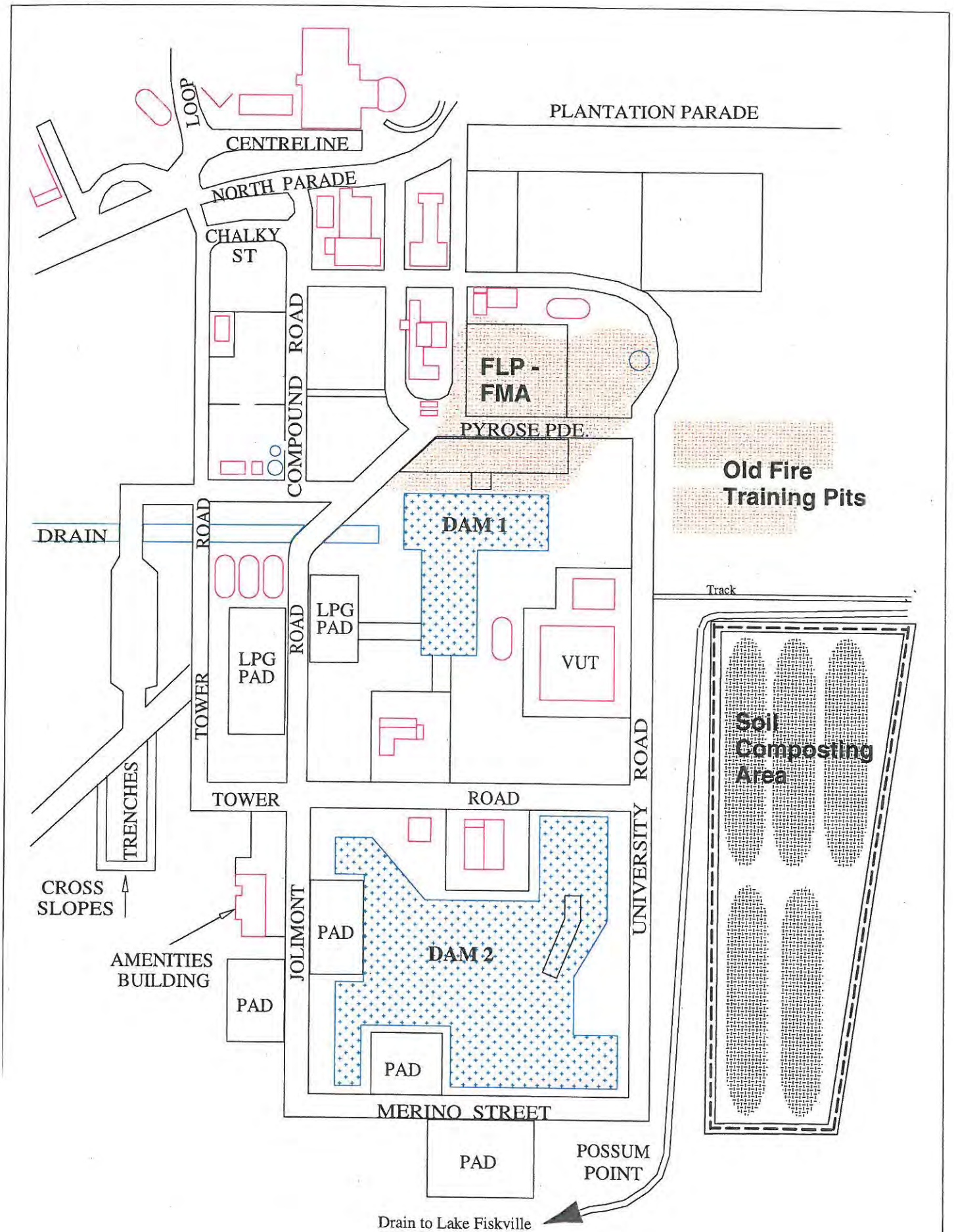

Approximate extent of contaminated areas to be excavated and backfilled

Drawn	Checked	Date
SHR		25 May 99

RIO TINTO
Research & Technology Development

Figure 2. Plan of remediation and soil treatment areas

Customer: Country Fire Authority

Project: Composting of Hydrocarbon Contaminated Soils at CFA, Fiskville

Project Code: CAV002

File: n:\CAV002\...\Figure 2.tsw

WYNSAFE
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Perfluorochemicals in Firefighting Water at CFA Fiskville

June 2010

Prepared for: Country Fire Authority
Fiskville Training College
4549 Geelong-Ballan Rd
FISKVILLE VIA BALLAN 3342

Contact: Noel Hawken
Manager Administration

Telephone: 5366 7232

Prepared by: Jim Blight MSc
Wynsafe Occupational Health Services

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1. Introduction

Wynsafe was retained by the Country Fire Authority (CFA) to determine whether firefighting water at CFA Fiskville contains PFOS or PFOA, and if so in what concentrations.

During May of 2000, after discussion with the United States Environmental Protection Agency (USEPA), the 3M Company decided to discontinue its AFFF product line with the effective end of production occurring sometime around November 2001. The reason for this withdrawal was based on test results that determined that a base material used in the production process (perfluorooctyl sulfonate (PFOS)) is considered P-B-T (Persistent, Bio-accumulative & Toxic) and as such further use would be harmful to the environment [1)2)]

As foams containing PFOS were previously used at CFA Fiskville, it was decided to test the firefighting water to determine whether PFOS and PFOA (perfluorooctanoic acid) were present, and whether any levels present would pose a risk to personnel.

Samples were taken on 7 June from the following locations:

- **Pit** – supplies water to the main hydrant on the PAD
- **Dam 2** – supplies water to the backup hydrant on the PAD
- **Fiskville Pumper 3 (MYT 543)** – used for training and has been on site for many years

Samples were taken from the above sampling points as firefighting water from the 2 PAD hydrants and the on-site appliances are considered to be the obvious source of any potential exposures to PFOS and/or PFOA for personnel.

Routine samples were also taken for BOD, Pseudomonas and *E.coli*.

2. Perfluorochemicals

These compounds are used in a wide variety of consumer products to make them repel water, grease or stains; as surfactants; and as fire suppressors. They can be found in many products:

- Nonstick pots and pans (Teflon and SilverStone)
- Stain resistant upholstery and carpets (Stainmaster and Scotchgard)
- Cosmetics and Shampoos
- Stain resistant or water resistant clothing and shoes (Gore-Tex and Scotchgard)
- Food wraps and paper packaging such as popcorn bags
- Cleaners and floor wax
- Electronics
- Paints and coatings
- Fire fighting foams

Many PFC's break down and become PFOA (perfluorooctanoic acid) or the more toxic PFOS (perfluorooctane sulfonate).

Ever since 3M announced its decision to end production of AFFF there has been intense speculation that other AFFF agents would also disappear. This speculation was based on the belief that telomer-based AFFF agents could break down into PFOA and that PFOA would eventually be regulated as have sources of PFOS. In October 2003, however, a USEPA workgroup determined that telomer-based AFFF is not likely to be source of PFOA in the environment. EPA concluded that existing data "provided no evidence that these fluorosurfactants biodegrade into PFOA or its homologs..."[3)]

However, a recent paper by Roger A Klein states that "it is also quite correct, although misleading, to say that the fluorotelomer fluorosurfactant foams are PFOS free and do not degrade to PFOS, as these foams contain a chemical entity which is similar to PFOS". This chemical entity (H-PFOS) is chemically very similar to PFOS and is considered a structural analogue of PFOS. Structural analogues have similar physical and chemical properties". H-PFOS has been found in very high levels in groundwater and to be extremely persistent at old military firefighting sites. So these fluorotelomer environmental biodegradation products are extremely persistent, surviving in groundwater for at least a decade, and are, as yet, of unknown bio-accumulative capacity and toxicity[4]

As a result, it would appear that all fluorosurfactants will be put under the microscope to try and establish whether they should be classified as Persistent, Bio-accumulative and Toxic as is the case with PFOS.

3. Results of Water Testing

2.2.1 *Analytical Results*

Location	PFOS (µg/L)	PFOA (µg/L)	BOD	Pseudomonas	*E coli*
Pit	5.5	17			
Dam 2	0.6	11			
Pumper 3	0.5	9.9			
Standard	0.2*	0.4*	10	10	150

* advisory level only (drinking water)

4. Water Quality Standards

In August 2009, the water quality standard for firefighting water at training grounds with respect to E.coli was revised to 150 orgs per 100mL. This change was recommended by Ecowise Environmental as being an appropriate standard for firefighting and supported by Wynsafe. EPA and DHS were contacted by CFA for comment and had no objections. The water quality standards were then revised to:

- E coli <150 orgs per 100mL
- BOD <10 mg/l
- pH 6.0 – 9.0
- Suspended solids <5 mg/l
- Pseudomonas aeruginosa <10 orgs per 100mL

The US Environmental Agency (EPA) has established a provisional **drinking water** advisory for PFOA of 0.4 µg/L and PFOS 0.2µg/L [2]. These are not legally enforceable standards.

The UK Committee of Chemicals in Food, Consumer Products and the Environment (COT) has recommended a Tolerable Daily Intake of 0.3µg/kg/day for PFOS and 3µg/kg/day for PFOA[5].

There are currently no Australian Standards or guidelines for either PFOS or PFOA in drinking water or occupational exposures to PFOS or PFOA.

5. Discussion

It should be noted that on the day of sampling large quantities of foam were visible on the surface of the Pit and in Dam 1 indicating that heavy use of firefighting foam had recently taken place. Foams currently used at Fiskville (Tridol 3-6 ATF) do not contain PFOS or PFOA according to their product information and material safety data sheets.

The results show that levels are above the USEPA advisory levels for drinking water. However, the normal route of exposure for CFA personnel would be by ingestion/inhalation of water and spray during training.

The National Water Commission document "Quantitative chemical exposure assessment for water recycling schemes" estimates that the median ingestion of water and spray for a firefighter is 20mL per fire [6]

Using the highest results from the Pit, this would gives a Daily Intake (assuming one fire or training exercise per day) of 5.5 X 20/1000 = 0.11µg for PFOS and 17 X 20/1000 = 0.34µg for PFOA. This would apply to personnel using water from the main hydrant on the PAD which is supplied from the Pit.

For an average male of 85kg, COT recommends a TDI of 0.3 X 85 = 25.5µg for PFOS and 3 X 85 = 255µg for PFOA. It can be seen that the estimated daily intakes for both PFOS and PFOA are many times lower then the recommended TDI values – 232 times for PFOS and 750 times for PFOA.

For an average female of 68kg, COT recommends a TDI of 0.3 X 68 = 20.4µg for PFOS and 3 X 68 = 204µg for PFOA. This is still many times lower than the recommended TDI values – 185 times for PFOS and 600 times for PFOA.

6. Conclusions and Recommendations

6.1 Conclusions

Although levels measured for PFOS and PFOA were above the USEPA advisory levels for drinking water (no standards or guidelines are currently available for occupational exposures), it can be shown that the estimated exposures will produce daily intakes several hundred times lower than the recommended Tolerable Daily Intake (TDI) for both PFOS and PFOA. This was based on the highest result which was for the Pit that supplies the main hydrant on the PAD. The result for the Pit can also be considered as a worst case scenario as the PAD had been used for a recruit training course the day before sampling and runoff containing foam from the PAD had flowed back into the Pit.

It is considered that if current Standard Operating Procedures (SOP's) are followed, and related Personal Protective Equipment (PPE) is used, personnel will suffer no adverse health effects from exposure to PFOS and/or PFOA in the firefighting water. This consideration is based on the current level of knowledge and therefore the following recommendations should be implemented.

6.2 Recommendations

1. CFA should monitor closely further research on the health effects of fluorosurfactants in firefighting foams to determine whether the current foam (Tridol) remains a recommended foam with no potential risks to personnel[4].
2. CFA should also monitor any changes in current advisory levels for drinking water, or the introduction of any new (particularly Australian) standards or guidelines for occupational exposure to PFOS or PFOA.

3. Samples should be taken from the Pit, Dam 2 and Pumper 3 on a 6 monthly basis and sent to:

   Leeder Consulting Pty Ltd
   Units 4-5, 18 Redland Drive
   MITCHAM VIC 3132

   Leeder Consulting will send out sample bottles before sampling – Phone (03) 9874 1988

   This will monitor any change in PFOS/PFOA concentrations and help to determine whether the compound is being flushed from the system or whether a "cleanup" is required.

Jim Blight
Manager/Senior Consultant

APPENDIX E

Sampling Methodology and Laboratory Analysis

1.0 SAMPLING METHODOLOGY

Discrete shallow soil samples were collected from identified drum storage and burial areas (i.e. Drum Burial Area (south of the Airstrip), Drum Fire Area and Prop Storage Area).

It is noted that when Golder Associates commenced this PSA, the Independent Investigation Team was only aware of one (1) Drum Burial Area to the south of the Airstrip. The other two (2) Drum Burial Areas were identified by CFA Personnel following the completion of the Golder Associates intrusive investigation. Therefore only the Drum Burial Area to the south of the Airstrip was intrusively investigated during this PSA. However the three (3) suspected Drum Burial Areas were surveyed with Ground Penetrating Radar (GPR) to assess if any subsurface features (e.g. drums or trenches) were present.

The current FLP is located in the area which previously included the Historical FLP, FMA and Fire Training Pits. Shallow soils from these areas were excavated and bio-remediated onsite in the 'Soil Composting Area' in the 1990's. Composite soil samples were collected from stockpiled soil in the Soil Composting Area.

Sediment and surface water samples were collected from Dam 1 adjacent to the current FLP. Dam 1 has collected surface water runoff from the FLP since the FLP was constructed in the mid 1970s. Sediment and surface water samples were also collected from Dams 2 - 4 and Lake Fiskville, as these dams are connected to Dam 1.

Tree core samples were collected from eucalyptus trees within the Drum Burial Area (south of the Airstrip), as analysis of the VOC content of tree cores can be used to detect subsurface VOC contamination.

The three (3) accessible groundwater bores (BH3, BH4 and BH5) onsite, were gauged with an oil/water interface probe during fieldworks, however all three bores were found to be dry. Therefore it was not possible to collect and analyse groundwater samples during this site investigation.

The site history indicates that flammable liquids from unknown sources were used and disposed of onsite. The chemical composition of these flammable liquids and their combustion products are unknown, therefore soil, sediment and surface water samples were analysed for a wide range of organic and inorganic compounds.

Fieldwork was undertaken between the 7 February and 1 March 2012. The sampling programme and sampling methodology is presented in Table 1.

Table 1: Sampling Programme

Area of Interest	Sample Type	Sample Annotation	Sampling Methodology	Chemicals of Interest	Number of Primary Samples Analysed
Outdoor Fire Training Area					
Soil Composting Area	Soil	A9HA1-A9HA2	Hand-Auger	TPH, BTEX, Metals, VOC, SVOC, Phenols, Perchlorates, PFOA/PFOS, PCDD and PCDF, PCB, Pesticides	2
Prop Storage Area	Soil	A8HA1-A8HA5	Hand-Auger	TPH, BTEX, PAH, Metals, VOC, SVOC, Phenols, Perchlorates, PFOA/PFOS, PCB, Pesticides	5
Dams 1,2,3,4	Sediment	SD3-SD10	Grab Sampler	TPH, BTEX, Metals, VOC, SVOC, Phenols, Perchlorates, PFOA/PFOS, PCDD and PCDF, PCB, Pesticides, TOC	8
Dams 1,2,3,4	Surface Water	SW3 – SW6	Grab Sampler	TPH, BTEX, PAH, Metals, VOC*, SVOC*, Phenols, Perchlorates, PFOA/PFOS, PCB, Pesticides	4
Training Centre Area					
Drum Fire Area	Soil	A7PT1 – A7PT7	Geoprobe Borehole Drilling	TPH, BTEX, PAH, Metals, VOC*, SVOC*, Phenols, Perchlorates, PFOA/PFOS, PCB, Pesticides	5
Northern Area					
Drum Burial Area (south of the Airstrip)	Soil	A6PT1 – A6PT10	Geoprobe Borehole Drilling	TPH, BTEX, PAH, Metals, VOC*, SVOC*, Phenols, Perchlorates, PFOA/PFOS, PCB, Pesticides	7
Drum Burial Area (south of the Airstrip)	Tree Core	TC1 – TC8	Increment Borer	VOC	4
South Western Area					
Fiskville Lake	Sediment	SD1-SD2	Grab Sampler	TPH, BTEX, Metals, VOC*, SVOC*, Phenols, Perchlorates, PFOA/PFOS, PCDD and PCDF, PCB, Pesticides, TOC	2
Fiskville Lake,	Surface Water	SW1 – SW2	Grab Sampler	TPH, BTEX, PAH, Metals, VOC*, SVOC*, Phenols, Perchlorates, PFOA/PFOS, PCB, Pesticides	2

* standard suite and tentatively identified compounds In total, Golder Associates analysed 19 primary soil samples from the Drum Burial Area (south of the Airstrip), Drum Fire Area, Prop Storage Area and Soil Composting Area. A total of 10 sediment samples and six (6) surface water samples were collected and analysed from the Dams 1 - 4 and Lake Fiskville. Four (4) tree core samples were analysed from the Drum Burial Area (south of the Airstrip). Additional samples were collected as necessary based on Golder Associates Quality Assurance/Quality Check (QA/QC) protocols. Additional soil and tree core samples were collected during the intrusive works and were placed on hold for analysis at a later date if deemed necessary.

A sample location plan is presented as Figure 8 – 2012 Sampling Location Plan in Appendix C.

Soil Sampling

Prior to any intrusive investigation works being undertaken, a Service Locator was engaged to locate underground services in the vicinity of the proposed borehole locations.

A total of 10 soil boreholes (A6PT1 – A6PT10) were drilled in the Drum Burial Area (south of the Airstrip) and further seven (7) boreholes (A7PT1 – A7PT7) were drilled in the Drum Fire Area. As per standard Golder Associates health and safety procedures, each borehole was hand augured until natural material was encountered. The boreholes were subsequently drilled with a Geoprobe drill rig using push tubes techniques with dedicated plastic liners until refusal on inferred basalt rock. Discrete soil samples were collected from selected depths, nominally 0.5m bgl, 1.0m bgl and 1.5 m bgl. A total of 32 soil samples were collected from these areas and 12 soil samples were selected for analysis based on visual or olfactory evidence of contamination and spatial distribution.

Two (2) composite soil samples (A9HA1- A9HA2) were collected from the windrows in the Soil Composting Area using a hand-auger to extract the samples. Each composite sample was combination of four (4) discrete samples collected across the windrow.

Five (5) discrete soil samples (A8HA1- A8HA5) were also collected the Prop Storage Areas using a hand-auger to extract the samples. Samples were collected from selected depths nominally 0.5 – 0.8 m bgl.

The soil types encountered were logged and any visual or olfactory evidence of contamination (i.e. odorous and stained soil) was noted and given a ranking. All soil samples were screened in the field for the potential presence of volatile organic compounds using a photo-ionisation detector (PID). The vertical depth of soils was recorded and the soil sampling locations recorded to Map Grid of Australia (MGA) using a Trimble Global Positioning System (GPS).

Geological logs including sample identifications and coordinates, soils encountered, samples collected and PID results are presented in Appendix G.

Soil sampling was undertaken in general accordance with Golder Associates standard sampling protocols and in general accordance with the requirements of Australian Standard AS4482.1 – 2005 *"Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds"*.

Sediment Sampling

A total of 10 sediment samples (SD1-SD10) were collected from the Dams 1 - 4 and Lake Fiskville. Each sample was collected using a spade to extract the discrete sediment sample. The samples were collected at the inlet and outlet of each dam.

Any visual or olfactory evidence of contamination (i.e. odorous and stained sediment) was noted. All sediments samples were screened in the field for the potential presence of volatile organic compounds using a PID. The sediment sampling locations were recorded to MGA using a hand held GPS.

Sediment sampling was undertaken in general accordance with Golder Associates standard sampling protocols and in general accordance with the CSIRO 2005 *"Handbook for Sediment Quality Assessment"* and Australian Standard AS5667.4 – 1998 *"Water Quality – Sampling Part 4 – Guidance on Sampling from lakes, natural and man- made"*.

Surface Water Sampling

A total of six (6) surface water samples (SW1-SW6) were collected from the Dams 1 - 4 and Lake Fiskville. One sample was collected from Dams 1 - 4 and two (2) samples were collected from Lake Fiskville. The samples were collected at the inlet of each dam using a dedicated disposal bailer.

Any visual or olfactory evidence of contamination (i.e. odorous water or sheen) was noted and the water quality parameters (pH, dissolved oxygen (DO) electrical conductivity (EC), temperature) were recorded insitu using a water quality meter. The surface water locations were recorded to Map Grid of Australia (MGA) using a hand held GPS.

Surface water sampling was undertaken in general accordance with Golder Associates standard sampling protocols and in general accordance with the requirements of Australian Standard AS5667.4 – 1998 *"Water Quality – Sampling Part 4 – Guidance on Sampling from lakes, natural and man- made"*.

Tree Coring

A total of eight (8) tree core samples (TC1-TC8) were collected from eucalyptus trees which are growing in the Drum Burial Area (south of the Airstrip). Each sample was collected by using an increment borer to extract an 8cm core from the tree trunk. The cores were collected from an average height of 1.2m above ground level (abl). The cores were immediately placed in chilled 40ml VOC vials following extraction from the tree.

The diameter of each tree was recorded following sampling and the sampling locations were recorded to MGA using a hand held GPS.

Tree core sampling was undertaken in general accordance with Golder Associates standard sampling protocols and in general accordance with the United States Geological Society 5008 – 2008 *"User guide to the collection and analysis of tree cores to assess the distribution of subsurface volatile organic compounds".*

GPR Survey

Golder Associates engaged Cardno Australia Pty Ltd (Cardno) to undertake a GPR survey of three (3) suspected Drum Burial Areas at the CFA Training College at Fiskville between the 1 and 2 May 2012.

The three (3) suspected burial areas were surveyed with GPR to assess if any subsurface features such as drums or trenches were present. Cardno reported that no anomalies were detected that resembled the buried drums or trenches.

A copy of Cardno's report is provided in Appendix E.

Quality Assurance/Quality Check

The following quality control procedures were conducted during the field investigation:

- All equipment used to collect samples (hand-auger, spade, increment borer) was thoroughly decontaminated between sampling locations, in general accordance with Golder Associates standard decontamination procedures. A rinsate blank sample was collected from the final rinse water of each sampling equipment to confirm that the decontamination process was thorough;
- Standard Golder Associates Quality Assurance/Quality Check (QA/AC) procedures were followed including the collection and laboratory analysis of duplicate samples at a minimum rate of one (1) primary duplicate for every 20 primary samples. Secondary duplicate samples were also collected at the same rate;
- Samples were placed by hand into laboratory prepared containers using disposable nitrile gloves which were exchanged with a clean set of gloves for each soil sample to avoid cross contamination between samples;
- Samples were labelled immediately and stored in a chilled cooler box; and
- Samples were then transferred to the laboratory in an appropriately sealed and insulated container, under chain of custody (COC) procedures.

1.1 Laboratory Analysis

Primary soil, sediment, surface water and tree core samples were submitted to the nominated primary laboratory, ALS Laboratory Group (ALS), which is registered by the National Association of Testing Authorities (NATA) for the analyses performed. Secondary samples were submitted to MGT Landmark Pty Ltd (MGT), which is also registered by NATA.

The samples were analysed for the following Chemicals of Interest (COI):

- Total Petroleum Hydrocarbons (TPH);;
- Benzene, Toluene, Ethylbenzene and Xylene (BTEX);
- Metals (As, Cd, Cr, Cu, Hg, Ni, Pb & Zn);
- Poly Aromatic Hydrocarbons (PAH) (16 US EPA priority compounds);
- Polychlorinated biphenyls (PCBs);
- Volatile Organic Compounds (VOC) (standard suite and tentatively identified compounds (TICs);
- Semi Volatile Organic Compounds SVOC (SVOC) (standard suite and TICs);
- Perchlorates;
- Perfluoroctyl Sulfonate (PFOS) or Perfluoroctanoic Acid (PFOA);
- Pesticides;
- Phenols; and
- Poly Chlorinated Dibenzo Dioxins & Furans (PCDD & PCDF) (Sediment Samples and Soil Composting Areas samples only).

Chain of Custody documents and the ALS and MGT laboratory reports are presented in Appendix J.

The results of the laboratory soil, surface water, sediment and tree core analysis are tabulated in Appendix H and the date quality assurance assessment is also included in Appendix H.

CFA Training College, Fiskville

Ground Penetrating Radar Investigative Report

Prepared for: Golder Associates

Date of Investigation: 1 – 2 May 2012

Date 11 / 5 / 12

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Document Control: Ground Penetrating Radar Investigative Report				
Date	**Author**		**Reviewer**	
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11/5/12	Thomas Pitt	T.P		

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Commercial in Confidence

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Area 3

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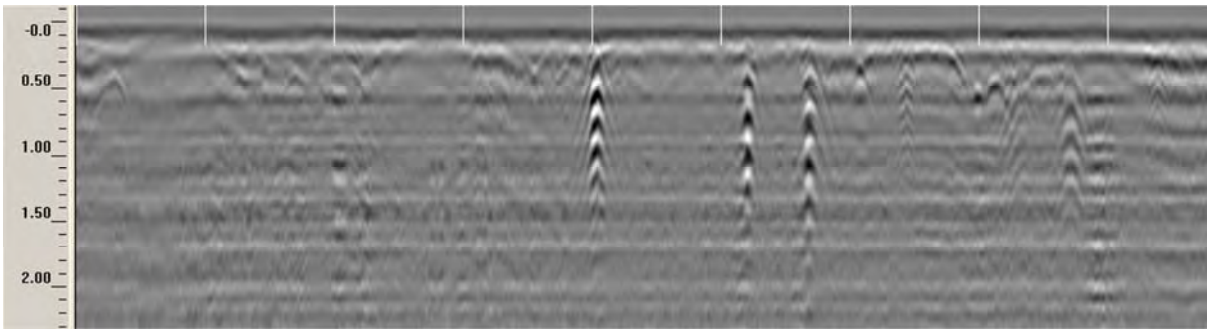
Area 5

2 RESULTS

Average Generic Data Images from each of the selected areas

Grid 1



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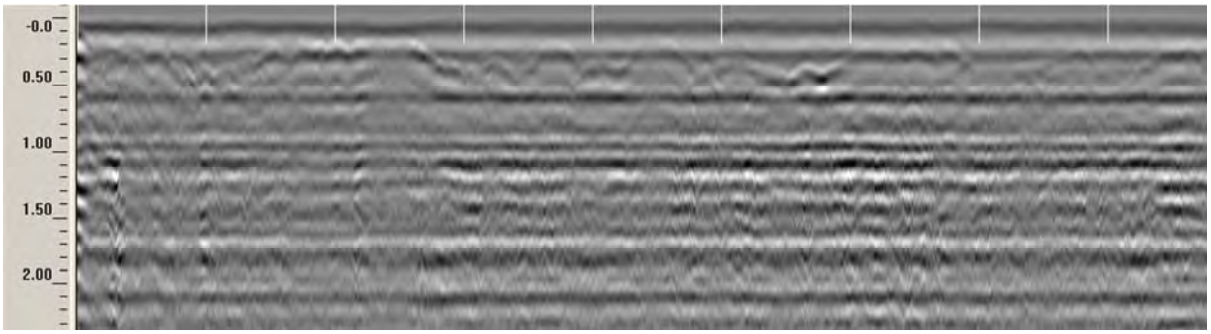

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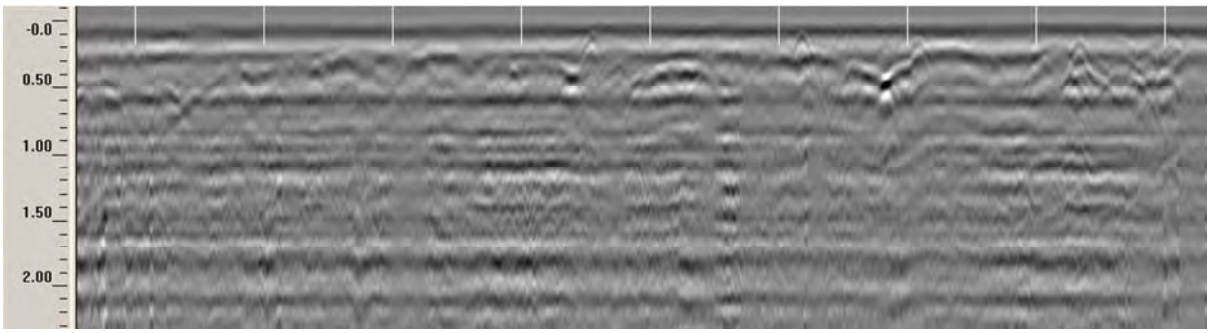

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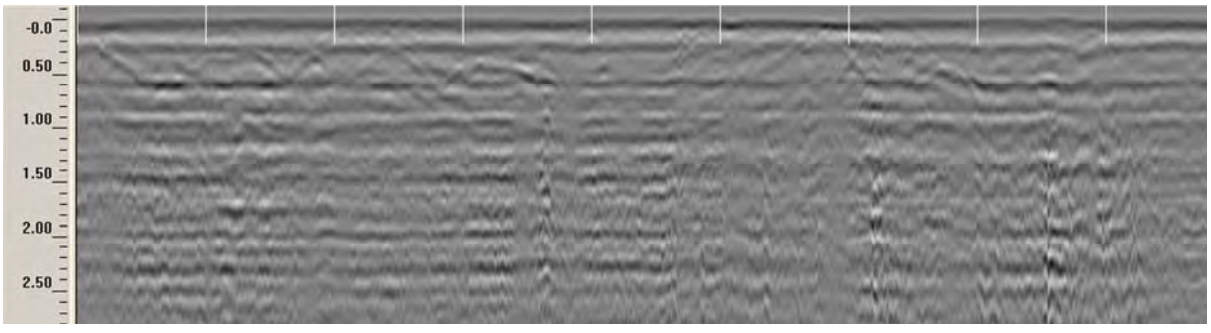

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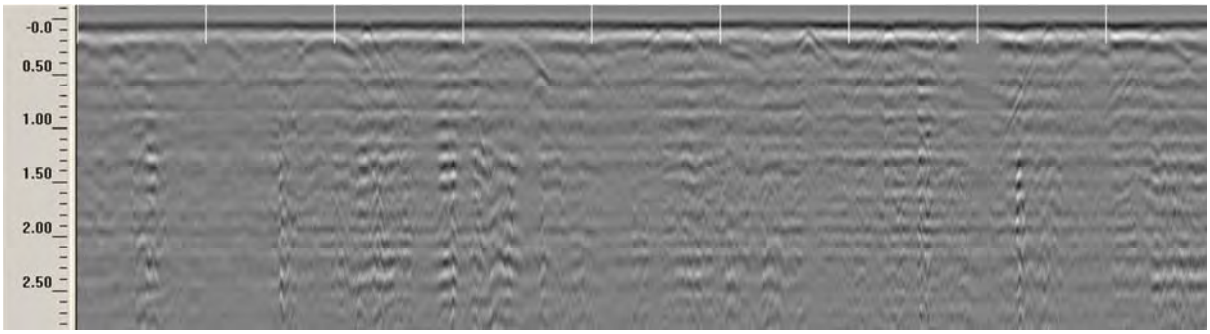

3 SUMMARY

No anomalies were detected that resembled the suspect buried drums that were the focus of the investigation. Subsurface conditions limited the effective penetration of the radar signal to a depth no greater than 2.0m. Also no trench indications were identified through the GPR survey process.

4 ATTACHMENT A

The interpretations, conclusions and recommendations presented herein are based on inferences from subsurface radar data collected during the site investigation. The ground penetrating radar assessment of this site is based on our professional evaluation of the acquired geophysical data. This report was prepared in accordance with general scientific practice and meets the standards of care of our profession. However, while due care was exercised in the acquisition and interpretation of GPR measurements, Cardno AUS can offer no warranties or guarantees with respect to existing subsurface conditions.

APPENDIX F

Beneficial Uses and Assessment Criteria

1.0 SOIL

1.1 Land Beneficial Uses

The SEPP 2002 (Prevention and Management of Contamination of Land) (Land SEPP, GoV, 2002) outlines land use categories and specifies beneficial uses that are to be protected for each category.

The site operates as a training college for emergency response and incident management and will remain in this use for the foreseeable future.

The site is zoned as 'Farming Zoning' and a large portion of the Site consists of forestry, grassland paddocks and landscaped land. However, agriculture is not considered an appropriate land use category as the Site is not currently, or in the foreseeable future likely to be, used for agriculture activities. Industrial is considered an appropriate land use category due the storage and use of flammable liquids and gases during fire fighting training activities on site. It is noted that there is temporary and permanent residential housing on site. This soil sampling component of the PSA was targeted at identified Areas of Interest (i.e., potential contamination sources) within the active fire training area. The relevant beneficial uses were therefore those associated with industrial land use.

The Land SEPP (GoV, 2002) outlines indicators and objectives for land based on the protected beneficial uses for these land uses. The beneficial uses outlined in Table 1 are relevant to the Site.

Table 1: Protected Land Beneficial Uses

Beneficial Use	Industrial Land Use
Maintenance of Ecosystems	
- Natural Ecosystems	
- Modified Ecosystems	
- Highly Modified Ecosystems	✓
Human Health	✓
Buildings and Structures	✓
Aesthetics	
Production of food, flora and fibre	

1.2 Soil Assessment Criteria

Available Australian soil criteria were used to screen soil samples collected at the Site, in accordance with state and federal guidance for assessment of site contamination for protection of the environment and human health. Where generic assessment criteria were lacking in Australia, these were sourced from other jurisdictions. Criteria published by select agencies in the Netherlands, Canada and United States were considered. The agencies identified from these jurisdictions were selected because the criteria published are risk-based, the approaches and guidance used to derive the criteria follow international best practice and are documented, transparent and readily available for review. Where criteria were not readily available from other jurisdictions, risk to humans or the environment could not be assessed.

Approach to Assessment of Dioxins

Polychlorinated dibenzo-p-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) are poly-chlorinated dioxin like compounds that are considered to be structurally and toxicologically related. PCDDs are represented by up to seven isomers, while PCDFs are represented by up to ten isomers. The structural differences between each isomer, results in differences in toxicity or potency. The overall toxicity of PCDD/F mixtures is expressed using the International Toxic Equivalents (TEQ). The TEQ scheme assigns each isomer a specific Toxic Equivalency Factor (TEF) relative to the most toxic isomer (TCDD (2,3,7,8-TCDD) - which is given a value of one).

To calculate the total PCDD or PCDF TEQ of a dioxin/furan mixture, the amounts of each isomer are multiplied by the respective TEF and summed. In this report the TEQ were calculated using World Health Organisation TEF's.

Where isomers are reported at concentrations less than the LOR, there are a number of standard, accepted ways that the TEQ can be calculated for PCDD/Fs. The TEQ can be calculated by assuming that the isomers reported below the LOR are present at zero, 50% or 100% of the LOR. These give an indication of a conservative best-case to worst-case estimate of actual concentrations, respectively, of total PCDD/D TEQ. This assessment calculates the TEQ based on 50% of the LOR.

Maintenance of Ecosystems

For assessment of the beneficial uses of "modified or highly modified ecosystems", the Land SEPP (GoV, 2002) states that contamination must not adversely affect the maintenance of the relevant ecosystems. Furthermore, the level of any indicator (i.e. potential contaminant) must not be greater than:

- Any regional Ecological Investigation Level (*EIL*) developed in accordance with the National Environment Protection *(Assessment of Site Contamination)* Measure(NEPM) (1999);
- Levels derived using a risk assessment methodology described in the NEPM; and
- Levels approved by the Authority (i.e. the Victorian Environment Protection Authority, EPA).

The analytical results from the soil samples were screened against the following soil assessment criteria:

- NEPM (1999) *Soil Ecological Investigation Levels.*

The criteria outlined in the NEPM are generic and if exceeded are intended to trigger further considerations of risk to these kinds of ecosystems. The criteria are generally based on phytotoxicity. At this site the protected beneficial use categories for Maintenance of Ecosystems are "modified ecosystems" and "highly modified ecosystems", for which the NEPM EILs are considered to be conservative.

As the NEPM provides EILs for only 14 inorganic chemicals, where NEPM EILs were lacking, the COI analysed as part of this PSA and detected above the laboratory LOR have been screened against select criteria from select jurisdictions to identify COI at the Site.

TPH results from the soil samples were screened against the Canadian Council of Ministers of the Environment (CCME, 2008) – *Canada-Wide Standard for Petroleum Hydrocarbons in Soils* (Ecological and Human Health (Industrial land use)).

The analytical results for 3 & 4 methylphenol, PCDD and PCDF were screened against the following soil assessment criteria:

- 3- & 4- methylphenol (m- and p-cresol, respectively) were screened against the criterion for p-cresol[1] taken from the Dutch National Institute of Public Health and the Environment (Rijksinstitute Voor Volksgezondheid en Milieu, RIVM, Verbruggen et al., 2001) *Ecotoxicological Serious Risk Concentration (SRC_{eco});*
- PCDD and PCDF criteria taken from the Canadian Council of Ministers of the Environment (CCME, 2012) Canadian Environmental Quality Guidelines (CEQG) *Soil Quality Guidelines for the Protection of Environmental and Human Health –Industrial land use;*

No ecological soil assessment criteria for PFOA and PFOS were found during the preparation of this report.

[1] The SRC_{eco} p-cresol criterion of 2.6 mg/kg is of low reliability. The SRC_{eco} m-cresol criterion of 16 mg/kg is of medium reliability. Adoption of the p-cresol criterion to screen m- and p-cresol in soils is conservative.

Human Health

For assessment of the beneficial use "human health", the Land SEPP (GoV, 2002) states that contamination must not cause an adverse impact on human health. Furthermore, it states that the level of any indicator (i.e. potential contaminant) must not be greater than:

- The Human Health Investigation Levels (HIL) specified in the NEPM;
- Levels derived using a risk assessment methodology described in the NEPM; and
- Levels approved by the Authority (i.e. the Victorian EPA).

As Industrial considered appropriate land use categories for assessment of soil analytical results, the analytical results from the soil samples were screened against the following soil assessment criteria:

- NEPM (1999) *Assessment of Soil Contamination Measure – Schedule B(1): Soil HIL "F" (Commercial/Industrial).*

Where NEPM HILs were lacking, the COI analysed as part of this PSA and detected above the laboratory LOR have been screened against select criteria from select jurisdictions to identify COI at the Site:

- TPH criteria from CCME (2008) *Canada-Wide Standard for Petroleum Hydrocarbons in Soils*;
- 3 & 4 methylphenol (m- and p-cresol) and PCDD and PCDF criteria taken from the United States Environmental Protection Agency (US EPA, 2011) *Regional Screening Levels for soils; and,*
- PFOA & PFOS criteria taken from Minnesota Pollution Control Agency (PCA) (1999) *Soil Reference Value (SRV).*

Buildings and Structures

For assessment of the beneficial use of "buildings and structures", the Land SEPP (GoV, 2002) states that contamination must not cause the land to be corrosive to, or adversely affect the integrity of structures or building materials. The beneficial use is assessed by a review of physical parameters, including the pH of soils in accordance with Australian Standard AS2159 – 2009 *"Piling – Design and installation"*.

Application of Soil Assessment Criteria

The soil assessment criteria represent threshold concentrations below which risks for the stated exposure scenarios and to receptors are considered acceptable. It is intended that the screening criteria be compared with the assessed exposure concentrations. An exceedance does not necessarily mean that risks are unacceptable, rather it means that the cause of the exceedance and the actual level of risk posed by this exceedence, merit closer examination.

2.0 SURFACE WATER

2.1 Surface Water Beneficial Uses

The protected beneficial uses of surface water in Victoria are outlined in the SEPP (WoV, GoV, 2003) (Variation S 107).

The SEPP (GoV, 2003) classifies surface water into the following four segments:

- Aquatic Reserves Segments;
- Wetland and Lakes Segments;
- River and Stream Segments; and
  - Highlands.
  - Forests A.
  - Forests B.
  - Cleared Hills and Coastal Plains.
  - Murray and Western Plains.
- Marine and Estuarine Segments.
  - Estuarine and Inlets.
  - Open Coasts.
  - Port Philip Bay.
  - Western Port.
  - Gippsland Lakes.

Each segment has defined beneficial uses and surface water in each segment must be of a suitable quality and quantity to support the defined beneficial uses.

Lake Fiskville is located in the south western portion of the Site, and discharges into Beremboke Creek which is part of the Moorabool River Catchment. It is inferred that the eastern portion of site drains south easterly into Yaloak Creek, which is part of the Werribee River Catchment. The Moorabool and Werribee rivers are listed within the Cleared Hills and Coastal Plains Segment in the SEPP (WoV, GoV, 2003) (S 107).

The protected beneficial uses within the Cleared Hills and Coastal Plains Segment are listed in Table 2.

Table 2: Protected Surface Water Beneficial Uses

Beneficial Use	Rivers and Streams
	Cleared Hills and Coastal Plains
Aquatic Ecosystems that are slightly to moderately modified	✓
Water Suitable for:	
Primary contact recreation:	✓
Secondary contact recreation:	✓
Aesthetic Enjoyment	✓
Indigenous Cultural and Spiritual Values	✓
Non-indigenous cultural and spiritual values	✓
Agricultural and Irrigation	✓
Aquaculture	✓
Industry and Commercial Use	✓
Human Consumption	✓
Fish, crustacean & molluscs for human consumption	✓

Surface water samples were collected from Dams 1 – 4 and Lake Fiskville.

As Beremboke Creek (which is part of the Moorabool River Catchment), flows through Lake Fiskville, surface water in Lake Fiskville must be of a suitable quality and quantity to support the defined beneficial uses within the Cleared Hills and Coastal Plains Segment. The beneficial uses for Lake Fiskville listed under the Cleared Hills and Coastal Plains Segment (and identified above) are considered unlikely to be realised given the use of the Site. The beneficial uses of "aquatic ecosystems", "aesthetic enjoyment" and "contact recreation" are considered most likely to be realised at the Site and thus the water in Lake Fiskville have been assessed against these indicators and objectives.

Birds are likely to be exposed to water in Lake Fiskville. However, the ANZECC and ARMCANZ (2000) WQG for protection of aquatic life and livestock are unsuitable for screening against impacts to bird life. Consequently, assessment of impacts to birds accessing waters in Lake Fiskville is outside of the scope of this assessment. Impacts to aquatic ecology and livestock drinking water may be used as an indicative assessment of potential for impact to birds.

Dams 1 - 4 are artificial (man-made) dams which are part of the FLP waste water treatment system.

The SEPP (WoV, GoV, 2003) considers artificial water features differently to natural surface waters, as follows:

Beneficial uses are protected except:

i) in circumstances where the background level would not provide for their protection;

ii) in artificial stormwater drains, artificial agricultural drains, artificial irrigation channels and drains or artificial wetlands (see clauses 46 and 51). These artificial environments need to be managed for the purposes for which they were constructed and must be designed and managed so that they are not harmful to humans or have unacceptable impacts on animals, and so that their impact on surface waters is minimised. Although beneficial uses are not protected in these artificial environments, it is not acceptable to dump or illegally discharge wastes into them.

iii) where otherwise specified in the Policy (see clause 48).

Dams 1 - 4 are artificial environments and the beneficial uses are not protected under SEPP WoV (GoV, 2003). There is limited potential for site users (humans) to come into contact with surface water in Dams 1, 3 and 4 during accidental exposures or planned routine maintenance activities (e.g. dredging, installation of aeration pumps). Exposure to surface waters in these scenarios and would be further limited or prevented by use of appropriate personal protective equipment (PPE) e.g., waterproof clothing. Surface water in Dam 2 is used in fire fighting training exercises; therefore there is the potential for trainees and trainers to come into contact with surface water in Dam 2 during these training exercises. .

On this basis, surface water analytical results in Dams 1 - 4 have been assessed for screening purposes using drinking water criteria. Screening the dam water quality against these criteria is a very conservative approach as the criteria are based on daily consumption of 2 L of water. As these dams form part of the waste water treatment at the Site consumption of this volume of water from these dams is unlikely. More likely exposures would be associated with incidental exposures during use of water in fire training and planned, routine maintenance activities where humans may be have limited dermal exposure to dam water or ingest limited quantities of dam water. The exposure doses in these scenarios are reduced compared to the exposure doses on which the drinking water criteria are based.

A discussion of the surface water assessment criteria applied to the Site are presented below. In summary the criteria adopted include:

- Ecosystems – freshwater aquatic ecosystem trigger values for the protection of 95% of species as outlined in ANZECC and ARMCANZ (2000) WQG.
- Recreation (Primary and Secondary) and Aesthetic Enjoyment – as outlined in Guidelines for Managing Risks in Recreational Waters (NHMRC 2008).
- Agriculture and Irrigation – trigger values for irrigation water and livestock drinking as outlined in ANZECC and ARMCANZ (2000) WQG.
- Aquaculture – toxicant guidelines for the protection of aquaculture species as outlined in ANZECC and ARMCANZ (2000) WQG.
- Human Consumption – as outlined in Australian Drinking Water Guidelines (NHMRC and NRMMC 2004).
- Fish, crustacean and molluscs for human consumption – toxicant guidelines for the protection of aquaculture species as outlined in ANZECC and ARMCANZ (2000) WQG.

Aquatic Ecosystems

The Moorabool River and Werribee River are listed within the Cleared Hills and Coastal Plains Segment in the SEPP (WoV, GoV, 2003) (S 107). The SEPP (GoV, 2003) states that the aquatic ecosystems to be protected under the Cleared Hills and Coastal Plains Segment are “slightly to moderately modified ecosystems”. Therefore, freshwater aquatic ecosystem trigger values for the protection of 95% of species in ANZECC and ARMCANZ (2000) WQG have been adopted for assessment of the protection of aquatic ecosystems.

Recreation & Aesthetic Enjoyment

The aim of the NHMRC (2008) Guidelines for Managing Risks in Recreational Waters is to ‘*protect human health during recreational activities in surface water and to preserve the aesthetic appeal of water bodies’*. Therefore these guidelines have been adopted for assessment of the protection of Recreation and Aesthetic Enjoyment.

The NHMRC (2008) guidelines refer to raw water for drinking and aesthetic purposes for toxicants, as provided in the Australian Drinking Water Guidelines (NHMRC and NRMMC, 2004).

However it is noted in NHMRC (2008) that:

> *"All guideline values listed in Table 9.1 are applicable to drinking water quality and are based on the daily consumption of 2 L. These values should only be used as a guide to deriving chemical values applicable to recreational water bodies. Using a consumption factor of 2 L will result in very conservative health guideline values in recreational water. When applying these values to recreational water exposure, consumption of 100–200 mL per day should be taken into consideration."*

Given the above statement from NHMRC (2008), the difference between the volume of water consumed as drinking water and the volume consumed during recreational activities equates to a potential increase in the drinking water criteria of 10 fold for inorganic chemicals[2], taking other pathways into account. Therefore the adopted criteria are considered conservative for inorganic chemicals.

Agriculture and Irrigation

The ANZECC and ARMCANZ (2000) WQG irrigation water long term trigger values (LTV) have been adopted to protect the beneficial use of irrigation. The irrigation LTV is defined as maximum concentration (mg/L) of contaminant in the irrigation water which can be tolerated assuming 100 years of irrigation, based on the irrigation loading assumptions. The LTV value has been developed to minimise the build-up of contaminants in surface soils during the period of irrigation and to prevent the direct toxicity of contaminants in irrigation waters to standing crops. The ANZECC and ARMCANZ (2000) WQG recommended water quality trigger values (low risk) for heavy metals and metalloids in livestock drinking water are adopted to protect the beneficial use of agriculture.

Aquaculture and Fish, crustacean and molluscs for Human Consumption

The ANZECC and ARMCANZ (2000) WQG toxicant guidelines for the protection of aquaculture species have been adopted to assess the impacts on beneficial use of aquaculture and fish, crustacean and molluscs for human consumption.

Human Consumption

The Australian Drinking Water Guidelines (NHMRC and NRMMC, 2004) *for drinking water, aesthetics and pesticides* have been adopted for assessment of the protection of beneficial use of human consumption of surface water.

Industrial Water Use

The ANZECC and ARMCANZ (2000) WQG states that the Guidelines provide no specific guidelines for industrial water use because industrial water requirements are so varied. Therefore for this PSA an assessment of surface water quality for the beneficial use of industrial water will be undertaken through consideration impacts to other beneficial uses.

Other Assessment Criteria

Where Australian criteria were lacking, the COI analysed as part of this PSA and detected above the laboratory LOR have been screened against select international risk-based assessment criteria to screen COI at the Site. Criteria published by agencies in the Netherlands, Canada and United States were considered. These jurisdictions were selected because the criteria are risk-based, the approaches, guidance used to derive the criteria follow international best practice and are documented, transparent and readily available for review.

- TPH criteria from WHO 2008 *Petroleum products in drinking-water. Background document for development of WHO Guidelines for drinking-water quality*. Geneva, World Health Organisation (WHO/SDE/WSH/05.08/123)PFOS/PFOA criteria from Dutch RIVM (Verbruggen et al., 2001) *Ecotoxicological Serious Risk Concentration (SRC_{eco});*
- PFOS/PFOA criteria from US EPA (2009) *Provisional Health Advisory Levels (HAL)*

[2] Drinking water guidelines may be increased by a factor of 10 for specific chemicals where ingestion whilst swimming is likely to be the most significant exposure route. For some chemicals, such as organics, exposure via dermal absorption and inhalation of volatiles may also be significant. For these chemicals, application of default multipliers to the guidelines is not appropriate.

Application of Surface Water Assessment Criteria

As surface water Lake Fiskville must be of a suitable quality and quantity to support the defined beneficial uses within the Cleared Hills and Coastal Plains Segment, the surface water analytical results from Lake Fiskville have been compared to the assessment criteria outlined above.

3.0 SEDIMENT ASSESSMENT CRITERIA

Sediment samples were collected from Dams 1 – 4 and Lake Fiskville. The protected beneficial uses of sediments in surface waters in Victoria are captured in the SEPP (WoV, GoV, 2003) (Variation S 107).

Dams 1 - 4 are artificial water bodies, and are part of the FLP waste water treatment system, the beneficial uses protected under SEPP WoV (GoV, 2003) are not considered applicable. There is the potential for site users to come into contact with sediment in Dams 1 – 4 as a consequence of accidental exposures, or during planned, routine maintenance activities (e.g. dredging, installing aeration pumps). Noting that humans undertaking planned maintenance activities, are likely to be wearing appropriate personal protective equipment (PPE) which will further limit the likelihood for exposure. On this basis, sediments in Dams 1-4 had been assessed for the potential impact on human health.

Beremboke Creek flows through Lake Fiskville thus sediments in Lake Fiskville must be of a suitable quality and quantity to support the defined beneficial uses within the Cleared Hills and Coastal Plains Segment. The beneficial uses for Lake Fiskville listed under the Cleared Hills and Coastal Plains Segment (and identified above) are considered unlikely to be realised given the use of the Site. The beneficial uses of "maintenance of aquatic ecosystems", "human health" and "aesthetics" are considered most likely to be realised at the Site. The water in Lake Fiskville has been assessed against these indicators and objectives.

3.1 Maintenance of Ecosystems

The Lake Fiskville sediment data have been screened using available Australian sediment criteria. Screening the sediment against available sediment criteria will identify where chemical concentrations are elevated and may pose impacts to aquatic ecosystems of Lake Fiskville.

To assess protection of the beneficial use of "modified or highly modified ecosystems", the sediment results from Lake Fiskville (SD1 & SD2) were screened against the following sediment assessment criteria:

- ANZECC and ARMCANZ (2000) WQG *Interim Sediment Quality Guidelines* (*ISQG*) *low and high.*

These assessment criteria are trigger values that may prompt further action if exceeded. Further action may include management or remedial action or further investigation to consider the fraction of the contaminant that is bioavailable or can be transformed and mobilised in a bioavailable form.

Where Australian criteria were lacking, the COI analysed as part of this PSA and detected above the laboratory LOR have been screened against select international risk-based assessment criteria to screen COI at the Site. Criteria published by agencies in the Netherlands, Canada and United States were considered. These jurisdictions were selected because the criteria are risk-based, the approaches, guidance used to derive the criteria follow international best practice and are documented, transparent and readily available for review.

- PCDD and PCDF criteria from CCME (2012) CEQG *Sediment Quality Guidelines for the Protection of Aquatic Life;*

No sediment ecological assessment criteria for PFOA and PFOS were found during the preparation of this report.

3.2 Human Health

There are no guidelines in Australia and no readily available guidelines in other jurisdictions for screening impacts to humans from sediments. In the absence of sediment guidelines protective of humans, screening against available soil guidelines is considered appropriate. Thus, the sediment results were screened against the same assessment criteria as identified in Section 1.

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APPENDIX G

Field Work Documentation

Sediment Sampling Record Form

Project Number	117613201
Client	Independent Forestry.
Site Location	CFA, Fidelville

Date	8/2/2011
Sampled by	NM/TK
Weather	Dry + Cool.

Sampling Methodology	Spade* decon'ed between sampling rounds.

Sampling Data

Sample Location	Sample ID	Observations	PID	Coordinates
Lake Fidelville	SD1	Dark Brown OA(NE)	0.0	0254477, 5825773 — SD2
RF-(inlet)	SD2	" " " "	0.0	025339 5825347 — SD1
Dam 4 (out-let)	SD3	" " "	0.0	0254526, 5825507
Dam 4 (in-let)	SD4	Dark grey/black (OA)(NE)	0.0	0254590, 5825494
Dam 3 (out-let)	SD5	Black, SAT, NEC (OA)	0.0	0254738, 582529
Dam 3 (in-let)	SD6	Black, SAT, NEC (OA)	0.0	0254600, 5825473
Dam 2 (out-let)	SD7	Black, SAT, NEC (OA), organic	0.0	0254860, 5825520
Dam 2 (in-let)	SD8	Black, SAT, HC odour) 1C	13.6	0254770, 5825540
Dam 1 (out-let)	SD9	BLK, SAT, leaves, 2C	23.7	0254817, 5825623
* Dam 1 (in-let)	SD10	BLK SAT, HC sheen+O 2C	29.5	0254859, 5825672
SD10 = Duplicate		+ Triplicate		

Surface Water Sampling Record Form

Project Number	117613201
Client	Independent Investigator
Site Location	CFA, Fishermans

Date	8/2/2012
Sampled by	NJC/TK
Weather	Dry + Cool

Sampling Methodology	Dedicated bailers

Surface Water Sampling Data

Sample Location	Sample ID	Temperature (°C)	Dissolved Oxygen (ppm)	Electric Conductivity (µS/cm)	pH	Observations
Lake Fisherman	SW01	17.6	5.90	269.4	7.25	OA (yellow, Med Turb)
Lake Fisherman	SW02	17.7	7.79	285.3	7.7	OA (" ")
Dam 4	SW03	17.4	9.59	553	9.21	OA (clear)
Dam 3	SW04	20.3	12.21	633	9.61	OA (plants, [redacted] clear)
Dam 2	SW05	20.4	21.18	573	8.81	OA
Dam 1	SW06*	19.8	9.51	460	9.11	2C (MC sheen + colour)
* Duplicate + Triplicate Samples						

REPORT OF BOREHOLE: A6PT1

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.00 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		A6PT1/2001 0.20-0.60 m R = 0A PID = 0.2 ppm				FILL - Sandy SILT, low liquid limit, pale brown sand, fine to coarse grained sand	D		
			0.5	0.50	A6PT1/2002 0.70-0.10 m R = 0A PID = 0.2 ppm				Silty CLAY, high plasticity, pale grey to dark brown, trace fine grained subrounded gravel			
			1.0	1.00					END OF BOREHOLE @ 1.00 m Refusal @ 1.0mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT2

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.20 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, dark brown, fine to coarse grained, fine grained gravel			
			0.5	0.50								
PT					A6PT2/2001 0.50-0.80 m R = 0A PID = 0.3 ppm				Silty CLAY, high plasticity, pale grey to dark brown with some fine grained sand	D		
			1.0		A6PT2/2002 0.90-1.20 m R = 0A PID = 0.2 ppm							
				1.20					END OF BOREHOLE @ 1.20 m Refusal @ 1.2m			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT3

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, dark brown sand, fine to coarse grained, fine to coarse gravel			
					A6PT3/2001 0.20-0.50 m R = 0A PID = 0.0 ppm							
			0.5	0.50					Silty CLAY, high plasticity, pale grey to dark brown with trace of fine to coarse grained sand	D		
PT			1.0		A6PT3/2001 1.20-1.50 m R = 0A PID = 0.4 ppm							
			1.5	1.50					END OF BOREHOLE @ 1.50 m Refusal @ 1.5mbgl			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT4

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.30 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		A6PT4/2001 0.00-0.30 m R = 0A PID = 0.2 ppm				FILL - Sandy SILT, low liquid limit, dark brown, soil is fine to coarse grained			
				0.50								
PT			0.5						Silty CLAY, high plasticity, pale grey to dark brown with trace of fine grained subrounded gravel			
			1.0		A6PT4/2002 1.00-1.30 m R = 0A PID = 0.4 ppm							
				1.30					END OF BOREHOLE @ 1.30 m Refusal @ 1.3			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT5

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		A6PTS/2001 0.20-0.50 m R = 0A PID = 0.3 ppm				FILL - Sandy SILT, low liquid limit, pale brown sand is fine to coarse grained, trace of fine grained sand	D		
			0.5	0.50					END OF BOREHOLE @ 0.50 m Refusal @ 0.5mbgl			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT6

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown sand is fine to coarse grained, trace of fine to medium grained gravel			
					A6PT6/2001 0.20-0.50 m R = 0A PID = 0.4 ppm							
			0.5	0.50					Silty CLAY, high plasticity, pale grey to dark brown, trace of fine to coarse grained subrounded sand	D		
PT			1.0		A6PT6/2002 1.20-1.50 m R = 0A PID = 0.5 ppm							
			1.5	1.50					END OF BOREHOLE @ 1.50 m Refusal @ 1.5mbgl			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT7

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown sand is fine to coarse grained			
					A6PT7/2001 0.20-0.30 m R = 0A PID = 0.3 ppm							
			0.5	0.50								
PT									Silty CLAY, high plasticity, pale grey to dark brown, trace of fine subrounded gravel	D		
			1.0		A6PT7/2002 1.20-1.50 m R = 0A PID = 0.2 ppm							
			1.5	1.50					END OF BOREHOLE @ 1.50 m Refusal @ 1.5m			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT8

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.10 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, brown sand is fine to coarse grained, trace of fine grained gravel			
				0.50	A6PT8/2001 0.30-0.60 m R = 0A PID = 0.3 ppm							
PT			0.5						Silty CLAY, high plasticity, pale grey to dark brown, trace of fine subrounded gravel			
					AGPT8/2002 0.80-1.10 m R = 0A PID = 0.8 ppm							
			1.0	1.10					END OF BOREHOLE @ 1.10 m Refusal @ 1.1 mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT9

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.10 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown sand is fine to coarse grained, trace of fine grained gravel	D		
				0.40	A6PT9/2001 0.30-0.60 m R = 0A PID = 0.3 ppm				Silty CLAY, high plasticity, pale grey to dark brown, trace of fine subrounded gravel			
			0.5		A6PT9/2002 0.70-1.00 m R = 0A PID = 0.9 ppm							
			1.0	1.10					END OF BOREHOLE @ 1.10 m Refusal @ 1.1mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A6PT10

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 13/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.80 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown, sand is fine to coarse grained, trace fine grained gravel			
				0.20								
PT			0.5		A6PT10/2001 0.50-0.80 m R = 0A PID = 0.5 ppm				Silty CLAY, high plasticity, pale grey to dark brown	D		
				0.80					END OF BOREHOLE @ 0.80 m Refusal @ 0.8m			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7PT3

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.10 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0		A7PT3/2001 0.20-0.85 m R = 0A PID = 0.2 ppm				FILL - Sandy SILT, low liquid limit, pale brown, fine to medium grained sand, trace fine to coarse grained gravel			
			0.5	0.50					Sandy Silty CLAY, high plasticity, pale grey to orange brown, sand is fine grained			
PT			1.0	1.10	A7PT3/2002 0.80-1.10 m R = 0A PID = 0.3 ppm				END OF BOREHOLE @ 1.10 m Refusal @ 1.1mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7PT4

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.20 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown, fine to red grained sand, trace of fine gravel			
					A7PT4/2001 0.30-0.60 m R = 0A PID = 0.2 ppm							
			0.5	0.55					Silty CLAY, high plasticity, pale grey to orange brown, trace of fine to medium grained sand	D		
PT			1.0		A7PT4/2002 0.80-1.20 m R = 0A PID = 0.3 ppm							
				1.20					END OF BOREHOLE @ 1.20 m Refusal @ 12mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7PT5

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.40 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown, fine to medium grained sand, trace fine grained gravel	D		
			0.5	0.50	A7PT5/2001 0.50-0.80 m R = 0A PID = 0.3 ppm				Silty CLAY, high plasticity, pale grey to brown, orange some fine grained sand, trace of coarser grained gravel			
PT			1.0	1.40	A7PT5/2002 1.00-1.40 m R = 0A PID = 0.3 ppm					M		
			1.5						END OF BOREHOLE @ 1.40 m Refusal @ 1.4mbgl			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7PT6

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.40 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						FILL - Sandy SILT, low liquid limit, pale brown sand is fine to coarse grained, trace of fine grained gravel			
			0.5	0.50	A7PT6/2001 0.50-0.80 m R = 0A PID = 0.2 ppm				Silty CLAY, high plasticity, pale grey to orange brown, some fine grained sand			
PT			1.0		A7PT6/2002 1.00-1.40 m R = 0A PID = 0.3 ppm							
				1.40					END OF BOREHOLE @ 1.40 m Refusal @ 1.4mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7PT7

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.40 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0						FILL - Sandy SILT, low liquid limit, pale brown, fine to coarse grained sand	D		
HA			0.5	*0.50*	A7PT7/2001 0.50-1.00 m R = 0A PID = 0.2 ppm				Silty CLAY, high plasticity, pale grey to orange to brown, trace of fine to medium grained sand	M		
PT			1.0	*1.40*	A7PT7/2002 1.00-1.40 m R = 0A PID = 0.3 ppm				END OF BOREHOLE @ 1.40 m Refusal @ 1.4mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A7TP1

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 14/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.80 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
			0.0						FILL - Sandy SILT, low liquid limit, pale brown , sand is fine to coarse grained			
HA			0.5	0.50	A7PT1/2001 0.50-0.80 m R = 0A PID = 0.3 ppm				Silty CLAY, high plasticity, pale grey to orange brown, trace of fine to coarse grained sand, coarse grained gravel intrusions from 1.3mbgl	D		
PT			1.0									
			1.5		A7PT1/2002 1.50-1.80 m R = 0A PID = 0.3 ppm					M		
				1.80					END OF BOREHOLE @ 1.80 m Refusal @ 1.8 mbgl			
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A8HA1

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 10/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	0.10					FILL - Clayey Sandy GRAVEL, fine to coarse grained, subrounded to subangular, orange to brown to grey, sand is fine to coarse grained			
				0.25					FILL - Silty Clayey SAND, medium to coarse grained, yellowish brown to red, trace of fine grained subangular gravel			
					A8HA1/2001 0.30-0.50 m R = 0B PID = 2.0 ppm							
			0.5	0.50					Silty CLAY, high plasticity, pale grey to brown, trace of fine grained sand			
									END OF BOREHOLE @ 0.50 m Refusal @ 0.5mbgl			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A8HA2

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 15/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 1.10 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0						Sandy gravelly SILT, low liquid limit, dark brown, sand is fine to coarse grained, subangular, fine to medium grained gravel			
				0.30					Silty CLAY, high plasticity, pale grey to orange brown, trace of fine to medium grained sand			
			0.5	0.50	A8HA2/2001 0.50-1.10 m R = 1D PID = 0.8 ppm				Clayey SILT, low liquid limit, dark grey to black, high plasticity clay with some wooden pieces and roots			
			1.0	1.10					END OF BOREHOLE @ 1.10 m Refusal @ 1.1mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

This report of borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

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REPORT OF BOREHOLE: A8HA3

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 10/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.50 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	0.10					FILL - Silty Clayey SAND, fine to coarse grained yellowish brown coal, high plasticity clay			
					A8HA3/2001 0.30-0.50 m R = 0A PID = 0.2 ppm				Silty CLAY, high plasticity, pale grey to brown, trace of fine grained sand			
			0.5	0.50					END OF BOREHOLE @ 0.50 m Refusal @ 0.5mbgl			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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REPORT OF BOREHOLE: A8HA4

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 15/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.90 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	0.20					Sandy Gravelly SILT, low liquid limit, dark brown sand is fine to coarse grained, fine to medium grained subangular gravel			
			0.5	0.60					Silty CLAY, high plasticity, pale grey to orange brown, trace of fine grained sand			
				0.90	A8HA4/2001 0.60-0.90 m R = 1D PID = 1.3 ppm				Sandy Clayey SILT, low liquid limit, dark grey to black, sand is fine to medium grained, some roots and wooden pieces			
			1.0						END OF BOREHOLE @ 0.90 m Refusal @ 0.9mbgl			
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

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This report of borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

REPORT OF BOREHOLE: A8HA5

SHEET: 1 OF 1

CLIENT:	CFA	POSITION:	DRILL RIG: Geoprobe
PROJECT:	Independent Investigation	SURFACE RL: m DATUM: AHD	DRILLER: SWD
LOCATION:	Fiskville	INCLINATION: -90°	LOGGED: RM DATE: 15/2/12
JOB NO:	117613201	HOLE DIA: 50 mm HOLE DEPTH: 0.80 m	CHECKED: NMC DATE: 19/3/12

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	DEPTH RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC Symbol	SOIL / ROCK MATERIAL DESCRIPTION	MOISTURE	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
HA			0.0	0.20					Sandy Gravelly SILT, low liquid limit, dark brown and orange sand is fine to coarse grained, fine to coarse grained gravel	M		
									Silty CLAY, high plasticity, pale grey to orange brown, trace of fine grained sand			
			0.5	0.50	A8HA5/2001, A8HAS/2801, A8HAS/2901 0.50-0.80 m R = 1D PID = 1.3 ppm				Sandy Clayey SILT, low liquid limit, dark grey to black, sand is fine to medium grained, some roots and wooden pieces			
				0.80					END OF BOREHOLE @ 0.80 m Refusal @ 0.8mbgl			
			1.0									
			1.5									
			2.0									
			2.5									
			3.0									
			3.5									
			4.0									
			4.5									
			5.0									

This report of borehole must be read in conjunction with accompanying notes and abbreviations. It has been prepared for environmental purposes only, without attempt to consider geotechnical properties or the geotechnical significance of the materials encountered. As such it should not be relied upon for geotechnical purposes.

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APPENDIX H

Analytical Results Tables and QA/QC Data Assessment

1.0 DATA QUALITY ASSURANCE

1.1 General

A data quality assurance program was implemented as part of the assessment work. The main aspects of the data quality assurance relate to the collection of quality control samples and generation of internal laboratory quality control data to support the reported results and the assessment of laboratory results.

The field work for this investigation was carried out in general accordance with Golder Associates' Environmental Field Manual, conducted under the Golder Associates' Quality System which operates in accordance with AS/NZS ISO 9001:2000.

The quality of the laboratory data generated was supported with appropriate laboratory quality control samples and assessed using standard methods. Quality control samples consisting of internal spikes, duplicates and method blanks were analysed as part of the laboratory quality assurance/quality control (QA/QC) program.

The overall assessment of the quality assurance program for the soil, sediment and surface water sampling has been made in terms of completeness. The completeness is equal to the percentage of valid QA and QC results. It is considered that a completeness target of 95% is appropriate.

The quality assurance and quality control results for soil that meet the acceptance criteria include the following:

- All field primary (blind) duplicates to be analysed at a frequency of at least 5% of total samples by the primary laboratory. RPDs generated should be less than 50%.
- All field secondary (split) duplicates to be analysed at a frequency of at least 5% of total samples by the secondary laboratory. RPDs generated should be less than 50%.
- All primary laboratory internal duplicates should generate RPDs less than 30%.
- All primary laboratory spikes recoveries for most analytes should generally be within the range of 70% to 130% or as prescribed by the laboratory.
- All field and laboratory blanks below reporting limits.
- An overall completeness of greater than 95% to be achieved.

2.0 SOIL DATA QUALITY ASSURANCE

One primary and one secondary duplicate sample were collected during the investigation and a total of nineteen primary samples were analysed. In addition, one rinsate and three trip blanks were collected and analysed. The total frequency rate for each of the primary and secondary duplicates satisfies the minimum target collection rate of 5%. Duplicate testing was performed for a range of analytes consistent with the analytical program for the primary samples. The results of the primary and secondary duplicate soil testing are presented in Table H9.

The overall assessment of the Golder Associates quality assurance program for the soil sampling has been made in terms of completeness. **Table 1** below provides a summary of the program and data quality assessment.

Table 1: Overall Summary of Quality Assurance Program for Soil

QC Sample Type	No. of Results NOT Meeting Data Quality Objectives	Total Number of Results (individual analytes)	Percentage Meeting Data Quality Objectives (DQO)
Primary Duplicates	7	239	97.0
Secondary Duplicates	5	233	97.8
Internal Duplicates	3	2208	99.8
Internal Laboratory Spikes	14	1460	99.0
Method Blanks	0	1555	100
Overall Completeness	**29**	**5695**	**99.4**

Based on **Table 1,** we make the following comments:

- Of the 239 Primary field (blind) duplicate analytes, only 7 of the blind duplicates exceeded the RPD criteria of 50%, thereby resulting in compliance of 97.0% which is greater than the data quality objective of 95%.
- Of the 233 Secondary field (split) duplicate analytes, only 5 of the blind duplicates exceeded the RPD criteria of 50%, thereby resulting in compliance of 97.8% which is greater than the data quality objective of 95%.
- A review of the RPDs for the Internal Laboratory Duplicate analyses indicates that 3 of the tests conducted produced results above the desired 30% RPD conformance limit. This represents compliance of 99.8% which is greater than the data quality objective of 95% and provides a good level of confidence in the precision of the primary laboratory data.
- A review of the Internal Laboratory Spike results indicates that 14 analyses provided a recovery outside 70-130%. This represents compliance of 99% which is greater than the data quality objective of 95% and provides a good level of confidence in the accuracy of the primary laboratory data.

Whilst the laboratory QA/QC program for the whole program achieves a completeness of 99.4% which is greater than the target of 95%, individually all QC sample types also meet this criterion. Given this, it is concluded that the quality of the data generated by Golder Associates from the soil assessment is considered to be sufficient to support the conclusions related to the soil contamination status of the site.

2.1 Sediment Data Quality Assurance

One primary and one secondary duplicate sample were collected during the investigation and a total of ten primary sediment samples were analysed. In addition, one rinsate and two trip blanks were also collected and analysed. The total collection rate for each of primary and secondary duplicates satisfies the minimum target collection rate of 5%. Duplicate testing was performed for a range of analytes consistent with the analytical program for the primary samples. The results of the primary and secondary duplicate testing are presented in Tables H10, H12 and H14.

The overall assessment of the Golder Associates quality assurance program for the soil sampling has been made in terms of completeness. **Table 2** below provides a summary of the program and data quality assessment.

Table H2: Overall Summary of Quality Assurance Program for Sediment

QC Sample Type	No. of Results NOT Meeting Data Quality Objectives	Total Number of Results (individual analytes)	Percentage Meeting Data Quality Objectives (DQO)
Primary Field Duplicates	23	463	95.0
Secondary Field Duplicates	42	254	83.4
Internal Laboratory Duplicates	4	770	99.4
Internal Laboratory Spikes	3	425	99.2
Method Blanks	0	516	100.0
Overall Completeness	**72**	**2428**	**97.0**

Based on **Table 2**, the following comments are made:

- Of the 463 primary duplicate analytes, 23 returned an RPD greater than 50%, representing a conformance level of 95.0%. This meets the required data quality objective of 95%.
- Of the 231 secondary duplicate analytes, 42 returned RPDs greater than 50% representing a conformance level of 83.4%. This is below the data quality objective of 95%. The majority of non-conformances relate to concentrations of SVOC, PCDD, and PCDF with the remaining non conformances relating to arsenic, cadmium, chromium, copper, nickel and zinc.

  It is considered that the source of the non-conformances may be due to the heterogeneous nature of the sample and or variation in the limits of reporting (LOR) for the two laboratories and also to results being close to the LOR. Although, PCDD and PCDF TEQ results were frequently reported below the LOR due to the inherent difficulties in detecting PCDD/PCDFs in environmental matrices at low concentrations, this has not impacted on the overall quality or outcome of the project.
- A review of the RPDs for the Internal Laboratory Duplicate results indicates that 4 of the tests conducted produced results above the desired 30% RPD conformance limit. This represents compliance of 99.4% which is greater than the data quality objective of 95% and provides a good level of confidence in the precision of the primary laboratory data.
- A review of the Internal Laboratory Spike results indicates that 3 tests provided a recovery outside 70-130%. This represents compliance of 99.2% which is greater than the data quality objective of 95% and provides a good level of confidence in the accuracy of the primary laboratory data.

In summary the laboratory QA/QC program for the whole program achieves a completeness of 97.0% which is greater than the target of 95%. However, where non-conformances have been highlighted (in particular that of the secondary duplicates), the non-conformances have been discussed and justified. Based on this, it is considered that the overall data quality generated during the assessment of ediment by Golder Associates is of acceptable quality upon which to base decisions for this assessment.

2.2 Surface Water Data Quality Assurance

One primary and one secondary duplicate sample were collected during the investigation and a total of six primary samples were analysed. In addition, one trip blank was collected and analysed. The total collection rate satisfies the minimum target collection rate of 5%. Duplicate testing was performed for a range of analytes consistent with the analytical program for the primary samples. The results of the primary and secondary duplicate testing are presented in Tables H11 and H13.

The overall assessment of the Golder Associates quality assurance program for the groundwater sampling has been made in terms of completeness. **Table 3** below provides a summary of the program and data quality assessment.

Table 3: Overall Summary of Quality Assurance Program for Surface Water

QC Sample Type	No. of Results NOT Meeting Data Quality Objectives	Total Number of Results (individual analytes)	Percentage Meeting Data Quality Objectives (DQO)
Primary Field Duplicates	4	245	98.3
Secondary Field Duplicates	15	232	93.5
Internal Laboratory Duplicates	0	253	100.0
Internal Matrix Spikes	2	245	99.1
Method Blanks	0	245	100.0
Overall Completeness	**22**	**1223**	**98.2**

Based on **Table 3**, we make the following comments:

- Of the 245 Primary field (blind) duplicate analytes, only 4 of the blind duplicates exceeded the RPD criteria of 50%, thereby resulting in compliance of 98.3% which is greater than data quality objective of 95%.
- Of the 232 Secondary field (split) duplicate analytes, only 17 of the blind duplicates exceeded the RPD criteria of 50%, thereby resulting in compliance of 92.7% %. This is below the data quality objective of 95%. The non-conformances mainly relate to concentrations of arsenic (filtered), nickel (filtered) and zinc (filtered), SVOC and VOC.

  It is considered that the source of the non-conformances are due to the results being close to LOR. As such, the non-conformance is not considered to have influenced the remedial decision or the overall quality or outcome of the project.
- A review of the RPDs for the Internal Laboratory Duplicate analyses indicates that all of the tests conducted produced results below the desired 30% RPD conformance limit. This represents compliance of 100 % which is greater than the data quality objective of 95% and provides a good level of confidence in the accuracy of the primary laboratory data.
- A review of the Internal Laboratory Spike results indicates that 2 tests provided a recovery outside 70-130%. This represents compliance of 99.1% which is greater than the data quality objective of 95% and provides a good level of confidence in the accuracy of the primary laboratory data.

In summary, the laboratory QA/QC program for the whole program achieves a completeness of 98.2% which is greater than the target of 95%. However, where non-conformances have been highlighted (in particular that of the secondary duplicates), the non-conformances have been discussed and justified. Based on this, it is considered that the overall data quality generated during the assessment of surface water by Golder Associates is of acceptable quality upon which to base decisions for this assessment.

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

																					Halogenated Benzenes											
						n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
						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
LOR						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.01	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05	0.5
Ecological																																		
Human Health - Industrial																																		
Location_Code	**Field_ID**	**Depth**	**Sampled_Date_Time**	**SDG**	**SampleCode**																													
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25	<0.5
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25	<0.5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																													
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																													
Statistical Summary																																		
Number of Results						19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25	<0.5
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.005	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.039	0.25	
Median Concentration						0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.005	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.025	0.25	
Standard Deviation						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.032	0	
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Some Analytes are missing from this Combined Compound.
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

						Heavy Metals								Herbicides	MAH (including BTEX)																		
						Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Pronamide	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total)	Total MAHs	Total BTEX
						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
LOR						5	1	2	5	5	0.1	2	5	0.5	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		0.2
Ecological						20	3	400	100	600	1	60	200																				
Human Health - Industrial						500	100	600,000	5000	1500	75	3000	35000																				
Location_Code	**Field_ID**	**Depth**	**Sampled_Date_Time**	**SDG**	**SampleCode**																												
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<5	<1	75	9	17	<0.1	27	13	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<5	<1	49	5	12	<0.1	12	7	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<5	<1	54	8	10	<0.1	23	8	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<5	<1	54	6	12	0.1	11	7	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<5	<1	73	9	14	0.1	28	8	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<5	<1	63	8	18	0.1	23	10	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<5	<1	74	13	13	0.2	32	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<5	<1	37	9	12	<0.1	41	8	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<5	<1	66	14	12	<0.1	24	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<5	<1	47	9	13	<0.1	11	11	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<5	<1	42	10	17	<0.1	27	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<5	<1	46	10	9	<0.1	31	6	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<5	<1	37	10	13	<0.1	12	8	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	10	<1	62	7	17	<0.1	12	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<5	<1	30	<5	11	<0.1	9	37	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<5	<1	24	<5	8	<0.1	6	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	6	<1	58	7	19	<0.1	12	14	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2[#3]	<0.5	<0.5	<0.5	<2.7[#3]	<0.2
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	7	<1	46	15	30	<0.1	26	91	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																												
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	6	<1	39	16	64	<0.1	27	89	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																												
Statistical Summary																																	
Number of Results						19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects						4	0	19	17	19	4	19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<5	<1	24	<5	8	<0.1	6	6	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.2	<0.5	<0.5	<0.5	<2.7	<0.2
Minimum Detect						6	ND	24	5	8	0.1	6	6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						10	<1	75	16	64	0.2	41	91	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7	<0.5	<0.5	<0.5	<3.2	<0.2
Maximum Detect						10	ND	75	16	64	0.2	41	91	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						3.5	0.5	51	8.9	17	0.066	21	20	0.25	0.25	0.25	0.1	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.2	0.25	0.25	0.25	1.5	0.1
Median Concentration						2.5	0.5	49	9	13	0.05	23	13	0.25	0.25	0.25	0.1	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.1	0.25	0.25	0.25	1.35	0.1
Standard Deviation						2.1	0	15	3.7	12	0.037	9.8	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0.13	0	0	0	0.13	0
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

						Organochlorine Pesticides																												Organophosphorous Pesticides									
						a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total)	b-BHC	cis-Chlordane	trans-Chlordane	g-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total)	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor & heptachlor epoxide (Sum of total)	Heptachlor epoxide	Methoxychlor	Organochlorine Pesticides	Other Organochlorine Pesticides (IWRG)	Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos
						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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						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	0.2			0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.2	0.2	0.2	0.05	0.05
Ecological																																													
Human Health - Industrial								50								1000										50																				
Location_Code	**Field_ID**	**Depth**	**Sampled_Date_Time**	**SDG**	**SampleCode**																																								
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.25	<0.25	<0.5 #2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1.5 #2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5 #2	<0.25	<1	<6.5 #1	<4.5 #1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1	<1	<0.25	<0.25
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.1	<0.1	<0.2 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.6 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2 #2	<0.1	<0.4	<2.6 #1	<1.8 #1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.4	<0.4	<0.1	<0.1
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.1	<0.1	<0.2 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.6 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2 #2	<0.1	<0.4	<2.6 #1	<1.8 #1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.4	<0.4	<0.1	<0.1
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.1	<0.1	<0.2 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.6 #2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2 #2	<0.1	<0.4	<2.6 #1	<1.8 #1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4	<0.4	<0.4	<0.1	<0.1
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	<0.25	<0.25	<0.5 #2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1.5 #2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5 #2	<0.25	<1	<6.5 #1	<4.5 #1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1	<1	<0.25	<0.25
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																																								
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	<0.05	<0.05	<0.1 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3 #2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1 #2	<0.05	<0.2	<1.3 #1	<0.9 #1	<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	<0.2	<0.05	<0.05
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																																							
Statistical Summary																																												
Number of Results						19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<0.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.2	<1.3	<0.9	<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	<0.2	<0.05	<0.05
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1	<1.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<1	<6.5	<4.5	<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	<1	<1	<0.25	<0.25
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.039	0.039	0.079	0.039	0.039	0.039	0.039	0.039	0.039	0.16	0.24	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.079	0.039	0.16	1	0.71	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.16	0.16	0.16	0.039	0.039
Median Concentration						0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.1	0.15	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.1	0.65	0.45	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.1	0.1	0.1	0.025	0.025
Standard Deviation						0.032	0.032	0.063	0.032	0.032	0.032	0.032	0.032	0.032	0.13	0.19	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.063	0.032	0.13	0.82	0.57	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.032	0.13	0.13	0.13	0.032	0.032
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

						PFOS/PFOA			PAH																	PAH-Others				Pesticides-Others		
						6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	2-Chloronaphthalene	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Carbazole	Chlorobenzilate	Demeton-s-methyl
						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
LOR						0.005	0.0005	0.0005	0.5	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05
Ecological						nc	nc	nc																									
Human Health - Industrial							2.1	2.1					5											100									
Location_Code	**Field_ID**	**Depth**	**Sampled_Date_Time**	**SDG**	**SampleCode**																												
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.005	<0.0005	0.001	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.005	<0.0005	0.005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.005	<0.0005	0.0008	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.005	<0.0005	0.0013	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.005	<0.0005	0.0006	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.005	<0.0005	0.0129	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.005	0.0009	0.0053	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.005	0.0273	0.249	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.005	<0.0005	0.0204	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.005	<0.0005	0.0044	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.005	<0.0005	0.0012	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	0.036	0.0076	0.287	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																												
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	1.64	0.0208	2.19	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																												
Statistical Summary																																	
Number of Results						19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects						2	4	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.005	<0.0005	<0.0005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05
Minimum Detect						0.036	0.0009	0.0006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						1.64	0.0273	2.19	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25
Maximum Detect						1.64	0.0273	2.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.09	0.0032	0.15	0.25	0.25	0.25	0.25	0.25	0.5	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	0.25	0.25	0.25	0.25	0.25	0.039
Median Concentration						0.0025	0.00025	0.0012	0.25	0.25	0.25	0.25	0.25	0.5	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	0.25	0.25	0.25	0.25	0.25	0.025
Standard Deviation						0.38	0.0076	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.032
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

						Phenolics					Phenolics-Halogenated							Phthalates						PCB	Sample Quality Parameter			Solvents				
						2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Bis(2-ethylhexyl) phthalate	Butylbenzyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	PCB (Sum of Total-Lab Reported)	pH (Lab)	Total Organic Carbon	Moisture	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Isophorone	Vinyl acetate
						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	pH	mg/kg	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.1	0.1	5000	1	5	5	5	0.5	5
Ecological									2.6																							
Human Health - Industrial									3100	42500														50								
Location_Code	Field_ID	Depth	Sampled_Date_Time	SDG	SampleCode																											
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		<5000	20.3	<5	<5	<5	<0.5	<5
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		<5000	16.4	<5	<5	<5	<0.5	<5
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	8.1	<5000	19.5	<5	<5	<5	<0.5	<5
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	5.8	21000	8.2	<5	<5	<5	<0.5	<5
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		<5000	17.4	<5	<5	<5	<0.5	<5
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		10000	21.4	<5	<5	<5	<0.5	<5
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		7000	23.4	<5	<5	<5	<0.5	<5
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	7.6	<5000	29.6	<5	<5	<5	<0.5	<5
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	6.6	<5000	26.2	<5	<5	<5	<0.5	<5
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	6.5	7000	16.2	<5	<5	<5	<0.5	<5
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	6.4	10000	19.4	<5	<5	<5	<0.5	<5
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	7.2	<5000	30	<5	<5	<5	<0.5	<5
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		6000	28.3	<5	<5	<5	<0.5	<5
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	6.9	22000	22.9	<5	<5	<5	<0.5	<5
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		14000	18	<5	<5	<5	<0.5	<5
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2		32000	19.2	<5	<5	<5	<0.5	<5
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.5	<0.5	<0.5	4.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	6.5	27000	18.9	<5	<5	<5	<0.5	<5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		24000	16	<5	<5	<5	<0.5	<5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																											
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1		43000	19.3	<5	<5	<5	<0.5	<5
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																											
Statistical Summary																																
Number of Results						19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	9	19	19	19	19	19	19	19
Number of Detects						0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	12	19	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	5.8	<5000	8.2	<5	<5	<5	<0.5	<5
Minimum Detect						ND	ND	ND	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8	6,000	8.2	ND	ND	ND	ND	ND
Maximum Concentration						<0.5	<0.5	<0.5	4.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.1	43,000	30	<5	<5	<5	<0.5	<5
Maximum Detect						ND	ND	ND	4.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1	43,000	30	ND	ND	ND	ND	ND
Average Concentration						0.25	0.25	0.25	0.72	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	2.5	0.25	0.25	0.25	0.25	0.25	0.068	6.8	12,658	21	2.5	2.5	2.5	0.25	2.5
Median Concentration						0.25	0.25	0.25	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	2.5	0.25	0.25	0.25	0.25	0.25	0.05	6.6	7,000	19.4	2.5	2.5	2.5	0.25	2.5
Standard Deviation						0	0	0	0.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.048	0.69	12,093	5.3	0	0	0	0	0
Number of Guideline Exceedances						0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

117613201

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

Location_Code	Field_ID	Depth	Sampled_Date_Time	SDG	SampleCode	SVOCs																			
						2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin
						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
LOR						0.5	0.5	0.5	0.5	0.5	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	0.5	0.5
Ecological																									
Human Health - Industrial																									
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																				
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																				

Location_Code	SampleCode	Total Petroleum Hydrocarbons											
		TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH+C10 - C36 (Sum of total) (Calculated)	TPH+C10 - C36 (Sum of total) (Lab Reported)	TPH+C10 - C40 (Sum of total) (Lab Reported)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		10	50	100	100		50	50	10	10	50	100	100
Ecological		210	150	1300	5600								
Human Health - Industrial		320	260	2500	6600			1000					
A6PT1	EM1201497007	<10	<50	260	<100	335[#4]	260	320	<10	<10	50	270	<100
A6PT2	EM1201497004	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A6PT3	EM1201497006	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A6PT4	EM1201497001	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A6PT6	EM1201552002	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A6PT8	EM1201552008	<10	<50	600	<100	675[#4]	600	730	<10	<10	120	610	<100
A6PT10	EM1201552011	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A7PT1	EM1201575002	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A7PT2	EM1201575003	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A7PT4	EM1201575008	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A7PT5	EM1201575009	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A7PT6	EM1201575012	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A8HA1	EM1201441003	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A8HA2	EM1201711001	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A8HA3	EM1201441004	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A8HA4	EM1201711002	<10	<50	<100	<100	<250[#5]	<50	<50	<10	<10	<50	<100	<100
A8HA5	EM1201711003	<10	<50	140	<100	215[#4]	140	200	<10	<10	<50	200	<100
A9HA1	EM1201441001	<10	<50	<100	<100	<250[#5]	<50	170	<10	<10	<50	170	<100
A9HA1	EM1201606001												
A9HA2	EM1201441002	<10	<50	<100	180	255[#4]	180	380	<10	<10	<50	230	150
A9HA2	EM1201606002												

Statistical Summary

Statistical Summary	2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin
Number of Results	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.25	1.3	0.25	0.25	0.25	0.25	0.5	0.25
Median Concentration	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.25	1.25	0.25	0.25	0.25	0.25	0.5	0.25
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Statistical Summary	TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH+C10 - C36 (Sum of total) (Calculated)	TPH+C10 - C36 (Sum of total) (Lab Reported)	TPH+C10 - C40 (Sum of total) (Lab Reported)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction
Number of Results	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects	0	0	3	1	4	4	5	0	0	2	5	1
Minimum Concentration	<10	<50	<100	<100	215	<50	<50	<10	<10	<50	<100	<100
Minimum Detect	ND	ND	140	180	215	140	170	ND	ND	50	170	150
Maximum Concentration	<10	<50	600	180	675	600	730	<10	<10	120	610	150
Maximum Detect	ND	ND	600	180	675	600	730	ND	ND	120	610	150
Average Concentration	5	25	95	57	177	82	113	5	5	31	115	55
Median Concentration	5	25	50	50	125	25	25	5	5	25	50	50
Standard Deviation	0	0	133	30	134	142	185	0	0	22	140	23
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0

Comments

#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H1 - Soil Results

Volatile Organic Compounds

Location_Code	Field_ID	Depth	Sampled_Date_Time	SDG	SampleCode	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
						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	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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		0.5	5	0.5	5	0.5	5	0.5	0.5	0.5		0.5	0.5	0.5	5	5
Ecological																																														
Human Health - Industrial																																														
A6PT1	A6PT1/2001	0.2-0.6	13/02/2012	EM1201497	EM1201497007	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT2	A6PT2/2002	0.9-1.2	13/02/2012	EM1201497	EM1201497004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT3	A6PT3/2002	1.2-1.5	13/02/2012	EM1201497	EM1201497006	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT4	A6PT4/2001	0.0-0.5	13/02/2012	EM1201497	EM1201497001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT6	A6PT6/2002	1.2-1.5	13/02/2012	EM1201552	EM1201552002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT8	A6PT8/2002	0.8-1.1	13/02/2012	EM1201552	EM1201552008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A6PT10	A6PT10/2001	0.5-0.8	13/02/2012	EM1201552	EM1201552011	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A7PT1	A7PT1/2002	1.5-1.8	14/02/2012	EM1201575	EM1201575002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A7PT2	A7PT2/2001	0.5-0.8	14/02/2012	EM1201575	EM1201575003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A7PT4	A7PT4/2002	0.8-1.2	14/02/2012	EM1201575	EM1201575008	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A7PT5	A7PT5/2001	1.0-1.4	14/02/2012	EM1201575	EM1201575009	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A7PT6	A7PT6/2002	1.0-1.4	14/02/2012	EM1201575	EM1201575012	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A8HA1	A8HA1/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A8HA2	A8HA2\2001	0.5-1.1	15/02/2012	EM1201711	EM1201711001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A8HA3	A8HA3/2001	0.3-0.5	10/02/2012	EM1201441	EM1201441004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A8HA4	A8HA4\2001	0.6-0.9	15/02/2012	EM1201711	EM1201711002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A8HA5	A8HA5\2001	0.5-0.8	15/02/2012	EM1201711	EM1201711003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201441	EM1201441001	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A9HA1	A9HA1/3001	not applicable	10/02/2012	EM1201606	EM1201606001																																									
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201441	EM1201441002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
A9HA2	A9HA2/3001	not applicable	10/02/2012	EM1201606	EM1201606002																																									

Statistical Summary

Statistical Summary	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
Number of Results	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5	<0.5	<0.5	<0.5	<5	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<12	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<6.5	<0.5	<0.5	<0.5	<5	<5
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	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	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5	0.25	0.25	6	0.25	2.5	0.25	2.5	0.25	2.5	0.25	0.25	0.25	3.3	0.25	0.25	0.25	2.5	2.5
Median Concentration	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	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5	0.25	0.25	6	0.25	2.5	0.25	2.5	0.25	2.5	0.25	0.25	0.25	3.25	0.25	0.25	0.25	2.5	2.5
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is use
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.
#5 ESDAT Combined.

XX = reported concentration exceeds Ecological criteria
XX = reported concentration exceeds Human Health Criteria for Industrial land use
nc = no criteria available

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H2 - Soil Results

						PCDD & PCDF																			
						1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	2,3,7,8-Tetrachlorooxanthrene	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF	Total TEQ
						pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
CEQG 1997 – Soil Quality Guidelines - Industrial																							4
US EPA Regional Screening Levels (Industrial), November 2011																							18
Location_Code	**Field_ID**	**Sampled_Date_Time**	**SDG**	**SampleCode**																			
A9HA1	A9HA1/3001	10/02/2012	EM1201606	EM1201606001	**Concentration**	<2.5	<2.5	<2.5	<2.5	11.7	821	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
					LOR	<2.5	<2.5	<2.5	<2.5	2.5	10.1	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
					WHO-TEF	<1	<0.1	<0.1	<0.1	0.01	0.0003	<0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.0003	
					WHO-TEQ$_2$ (0.5 LOR)	<1.26	<0.13	<0.13	<0.13	0.12	0.25	<0.03	<0.04	<0.38	<0.13	<0.25	<0.13	<0.13	<0.13	<0.01	<0.01	<0	3.22
A9HA2	A9HA2/3001	10/02/2012	EM1201606	EM1201606002	**Concentration**	<2.5	<2.5	<2.5	<2.5	22.5	1,350	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	2.9	<2.5	<5	
					LOR	<2.5	<2.5	<2.5	<2.5	2.5	10	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	2.5	<2.5	<5	
					WHO-TEF	<1	<0.1	<0.1	<0.1	0.01	0.0003	<0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	0.01	<0.01	<0.0003	
					WHO-TEQ$_2$ (0.5 LOR)	<1.25	<0.13	<0.13	<0.13	0.23	0.41	<0.03	<0.04	<0.38	<0.13	<0.25	<0.13	<0.13	<0.13	0.03	<0.01	<0	3.48

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001
SW2	SW2-1052/6002	Lake Fiskville	8/02/2012	EM1201357	EM1201357002

	n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.002	0.002	0.002	0.002	0.002	0.004	0.004	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.004	0.0002
Ecological												**0.25**	**0.55**			**0.065**		
Human Health - Drinking Water/Aesthetic/Pesticides														**0.03**				
Livestock Drinking Water (Trigger Values)																		
Aquaculture Species Protection																		
Irrigation Water Protection (Long-Term Trigger Values)																		
SW1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.0002
SW2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.0002
Statistical Summary																		
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.0002
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.0002
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																		
Median Concentration	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.0001
Standard Deviation																		
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Halogenated Benzenes										
	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.0005	0.002
Ecological	**0.01**	**0.17**	**0.16**	**0.26**	**0.06**						
Human Health - Drinking Water/Aesthetic/Pesticides			**0.001**	**0.02**	**0.04**				**0.01**		
Livestock Drinking Water (Trigger Values)											
Aquaculture Species Protection											
Irrigation Water Protection (Long-Term Trigger Values)											
SW1	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
SW2	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
Statistical Summary											
Number of Results	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration											
Median Concentration	0.0025	0.001	0.001	0.001	0.001	0.0025	0.0025	0.0025	0.0025	0.00025	0.001
Standard Deviation											
Number of Guideline Exceedances	0	0	2	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Some Analytes are missing from this Combined Compound.
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by:NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001
SW2	SW2-1052/6002		8/02/2012	EM1201357	EM1201357002

	Heavy Metals								Herbicides
	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Pronamide
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.005	0.002
Ecological		**0.0002**		**0.0014**	**0.0034**	**0.0006**	**0.011**	**0.008**	
Human Health - Drinking Water/Aesthetic/Pesticides	**0.007**	**0.002**		**1**	**0.01**	**0.001**	**0.02**	**3**	**0.002**
Livestock Drinking Water (Trigger Values)	**0.5**	**0.01**	**1**	**0.4**	**0.1**	**0.002**	**1**	**20**	
Aquaculture Species Protection	**0.05**	**0.0018**	**0.02**	**0.005**	**0.007**	**0.001**	**0.1**	**0.005**	0.002
Irrigation Water Protection (Long-Term Trigger Values)	**0.1**	**0.01**		**0.2**	**2**	**0.002**	**0.2**	**2**	
SW1	0.001	<0.0001	<0.001	**0.002**	<0.001	<0.0001	0.003	0.006	<0.002
SW2	0.002	<0.0001	<0.001	**0.003**	<0.001	<0.0001	0.004	**0.013**	<0.002
Statistical Summary									
Number of Results	2	2	2	2	2	2	2	2	2
Number of Detects	2	0	0	2	0	0	2	2	0
Minimum Concentration	0.001	<0.0001	<0.001	0.002	<0.001	<0.0001	0.003	0.006	<0.002
Minimum Detect	0.001	ND	ND	0.002	ND	ND	0.003	0.006	ND
Maximum Concentration	0.002	<0.0001	<0.001	0.003	<0.001	<0.0001	0.004	0.013	<0.002
Maximum Detect	0.002	ND	ND	0.003	ND	ND	0.004	0.013	ND
Average Concentration									
Median Concentration	0.0015	0.00005	0.0005	0.0025	0.0005	0.00005	0.0035	0.0095	0.001
Standard Deviation									
Number of Guideline Exceedances	0	0	0	2	0	0	0	2	0
Number of Guideline Exceedances(Detects Only)	0	0	0	2	0	0	0	2	0

	MAH (including BTEX)																	
	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total)	Total MAHs	Total BTEX
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.005	0.001	0.002	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.002		0.002	0.002	0.002		0.001
Ecological			**0.95**												**0.35**			
Human Health - Drinking Water/Aesthetic/Pesticides			**0.001**	**0.003**						**0.004**		**0.025**				**0.02**		
Livestock Drinking Water (Trigger Values)																		
Aquaculture Species Protection																		
Irrigation Water Protection (Long-Term Trigger Values)																		
SW1	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011[#1]	<0.002	<0.002	<0.002	<0.016[#1]	<0.001
SW2	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011[#1]	<0.002	<0.002	<0.002	<0.016[#1]	<0.001
Statistical Summary																		
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011	<0.002	<0.002	<0.002	<0.016	<0.001
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011	<0.002	<0.002	<0.002	<0.016	<0.001
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																		
Median Concentration	0.0025	0.0025	0.0005	0.001	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.001	0.0055	0.001	0.001	0.001	0.008	0.0005
Standard Deviation																		
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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CFA Training College, Fiskville
Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

						Organochlorine Pesticides																										
						a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total)	b-BHC	cis-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total)	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor & heptachlor epoxide (Sum of total)	Heptachlor epoxide	Methoxychlor	Organochlorine Pesticides	Other Organochlorine Pesticides (IWRG)
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/l	mg/l
LOR						0.0005	0.0005		0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002		0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005		0.0005	0.002		
Ecological															**0.00001**						**0.00002**			**0.0002**		**0.00009**				
Human Health - Drinking Water/Aesthetic/Pesticides								**0.0003**							**0.02**		**0.0003**							**0.02**		**0.0003**		**0.3**		
Livestock Drinking Water (Trigger Values)																														
Aquaculture Species Protection							**0.00001**									**0.0000015**	**0.000005**	**0.000003**	**0.000003**		**0.000002**				**0.000005**			**0.00003**		
Irrigation Water Protection (Long-Term Trigger Values)																														
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																									
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001	<0.0005	<0.0005	<0.001[#2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003[#2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001[#2]	<0.0005	<0.002	<0.013[#1]	<0.009[#1]
SW2	SW2-1052/6002		8/02/2012	EM1201357	EM1201357002	<0.0005	<0.0005	<0.001[#2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003[#2]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001[#2]	<0.0005	<0.002	<0.013[#1]	<0.009[#1]
Statistical Summary																														
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.013	<0.009
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.013	<0.009
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																														
Median Concentration						0.00025	0.00025	0.0005	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.001	0.0015	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.0005	0.00025	0.001	0.0065	0.0045
Standard Deviation																														
Number of Guideline Exceedances						0	2	2	0	0	0	0	0	0	2	2	2	2	2	0	2	0	0	2	2	2	0	2	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

								Organophosphorous Pesticides															
								Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos
								mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR								0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.002	0.002	0.0005	0.0005
Ecological								**0.00002**				**0.00001**		**0.00001**		**0.00015**							**0.000004**		
Human Health - Drinking Water/Aesthetic/Pesticides								**0.003**	**0.01**	**0.0005**	**0.005**	**0.01**		**0.001**	**0.001**	**0.05**	**0.003**	**0.0003**			**0.1**	**0.001**	**0.01**	**0.0005**	
Livestock Drinking Water (Trigger Values)																									
Aquaculture Species Protection																				**0.0001**					
Irrigation Water Protection (Long-Term Trigger Values)																									
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																				
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005
SW2	SW2-1052/6002		8/02/2012	EM1201357	EM1201357002			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005
Statistical Summary																									
Number of Results								2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration								<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005
Minimum Detect								ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration								<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005
Maximum Detect								ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																									
Median Concentration								0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.001	0.001	0.001	0.00025	0.00025
Standard Deviation																									
Number of Guideline Exceedances								2	0	0	0	2	0	2	0	2	0	2	0	2	0	2	2	0	0
Number of Guideline Exceedances(Detects Only)								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
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Table H3 - Surface Water Results - Lake Fiskville

						PFOS/PFOA			PAH																		PAH-Others			
						6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	2-Chloronaphthalene	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.0001	0.00002	0.00002	0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Ecological							**0.93**	**0.93**					**50**											**3**					
Human Health - Drinking Water/Aesthetic/Pesticides							**0.0004**	**0.0002**					**0.00001**								**0.016**								
Livestock Drinking Water (Trigger Values)																													
Aquaculture Species Protection																													
Irrigation Water Protection (Long-Term Trigger Values)																													
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																								
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001	0.0246	**0.00135**	**0.0272**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002
SW2	SW2-1052/6002		8/02/2012	EM1201357	EM1201357002	0.0236	**0.00146**	**0.035**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002
Statistical Summary																													
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						0.0236	0.00135	0.0272	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002
Minimum Detect						0.0236	0.00135	0.0272	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						0.0246	0.00146	0.035	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002
Maximum Detect						0.0246	0.00146	0.035	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																													
Median Concentration						0.0241	0.001405	0.0311	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0025	0.001	0.001	0.001	0.001
Standard Deviation																													
Number of Guideline Exceedances						0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by:NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001
SW2	SW2-1052/6002	Lake Fiskville	8/02/2012	EM1201357	EM1201357002

	Pesticides-Others			Phenolics					Phenolics-Halogenated						
	Carbazole	Chlorobenzilate	Demeton-s-methyl	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.002	0.002	0.0005	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004
Ecological								0.32		0.02	0.16		0.49		0.01
Human Health - Drinking Water/Aesthetic/Pesticides								0.002		0.002	0.2		0.3		0.01
Livestock Drinking Water (Trigger Values)															
Aquaculture Species Protection															
Irrigation Water Protection (Long-Term Trigger Values)															
SW1	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
SW2	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
Statistical Summary															
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration															
Median Concentration	0.001	0.001	0.00025	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002
Standard Deviation															
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Phthalates						PCB	Solvents				
	Bis(2-ethylhexyl) phthalate	Butylbenzyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	PCB (Sum of Total-Lab Reported)	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Isophorone	Vinyl acetate
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.002	0.002	0.002	0.002	0.002	0.001	0.05	0.05	0.05	0.002	0.05
Ecological			1	3.7	0.026							
Human Health - Drinking Water/Aesthetic/Pesticides	0.01											
Livestock Drinking Water (Trigger Values)												
Aquaculture Species Protection												
Irrigation Water Protection (Long-Term Trigger Values)												
SW1	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
SW2	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
Statistical Summary												
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration												
Median Concentration	0.005	0.001	0.001	0.001	0.001	0.001	5E-04	0.025	0.025	0.025	0.001	0.025
Standard Deviation												
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by:NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001
SW2	SW2-1052/6002	Lake Fiskville	8/02/2012	EM1201357	EM1201357002

Total Petroleum Hydrocarbons

	TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH+C10 - C36 (Sum of total) (Calculated)	TPH+C10 - C36 (Sum of total) (Lab Reported)	TPH+C10 - C40 (Sum of total) (Lab Reported)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.02	0.05	0.1	0.05		0.05	0.1	0.02	0.02	0.1	0.1	0.1
Ecological												
Human Health - Drinking Water/Aesthetic/Pesticides	15									0.09	0.09	0.09
Livestock Drinking Water (Trigger Values)												
Aquaculture Species Protection												
Irrigation Water Protection (Long-Term Trigger Values)												
SW1	<0.02	<0.05	<0.1	<0.05	<0.2[#4]	<0.05	0.13	<0.02	<0.02	<0.1	**0.13**	<0.1
SW2	<0.02	<0.05	<0.1	<0.07	<0.22[#4]	<0.05	<0.1	<0.02	<0.02	<0.1	<0.14	<0.1
Statistical Summary												
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	1	0	0	0	1	0
Minimum Concentration	<0.02	<0.05	<0.1	<0.05	<0.2	<0.05	<0.1	<0.02	<0.02	<0.1	0.13	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	0.13	ND	ND	ND	0.13	ND
Maximum Concentration	<0.02	<0.05	<0.1	<0.07	<0.22	<0.05	0.13	<0.02	<0.02	<0.1	<0.14	<0.1
Maximum Detect	ND	ND	ND	ND	ND	ND	0.13	ND	ND	ND	0.13	ND
Average Concentration												
Median Concentration	0.01	0.025	0.05	0.03	0.105	0.025	0.09	0.01	0.01	0.05	0.1	0.05
Standard Deviation												
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	2	2	2
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	1	0

SVOCs

	2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.004	0.002
SW1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
SW2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
Statistical Summary																				
Number of Results	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																				
Median Concentration	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.002	0.001
Standard Deviation																				
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
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Preliminary Site Investigation

Table H3 - Surface Water Results - Lake Fiskville

						Volatile Organic Compounds																																								
						1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.05	0.005	0.005		0.005	0.05	0.005	0.05	0.005	0.05	0.002	0.002	0.005		0.005	0.005	0.005	0.05	0.05
Ecological									6.5																														0.36							
Human Health - Drinking Water/Aesthetic/Pesticides												0.001		0.003	0.03															0.003								0.0007						0.05		0.0003
Livestock Drinking Water (Trigger Values)																																														
Aquaculture Species Protection																																														
Irrigation Water Protection (Long-Term Trigger Values)																																														
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode																																									
SW1	SW1-1051/6001	Lake Fiskville	8/02/2012	EM1201357	EM1201357001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108[#3]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056[#3]	<0.005	<0.005	<0.005	<0.05	<0.05
SW2	SW2-1052/6002	Lake Fiskville	8/02/2012	EM1201357	EM1201357002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108[#3]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056[#3]	<0.005	<0.005	<0.005	<0.05	<0.05
Statistical Summary																																														
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056	<0.005	<0.005	<0.005	<0.05	<0.05
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056	<0.005	<0.005	<0.005	<0.05	<0.05
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																																														
Median Concentration						0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.025	0.0025	0.0025	0.054	0.0025	0.025	0.0025	0.025	0.0025	0.025	0.001	0.001	0.0025	0.028	0.0025	0.0025	0.0025	0.025	0.025
Standard Deviation																																														
Number of Guideline Exceedances						0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined.

XX = reported concentration exceeds ecological criteria
XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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Checked by:NMC

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Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.004	0.004	0.004	0.002	0.002	0.002	0.002	0.002	0.002
Human Health - Drinking Water/Aesthetic/Pesticides																			0.03
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Location_Code	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate	Halogenated Benzenes: 1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.002	0.004	0.004	0.0002	0.005	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.0005	0.002
Human Health - Drinking Water/Aesthetic/Pesticides							0.001	0.02	0.04				0.01		
SW3	<0.002	<0.004	<0.004	<0.0002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
SW4	<0.002	<0.004	<0.004	<0.0002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
SW5	<0.01	<0.02	<0.02	<0.0002	<0.005	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.0025	<0.01
SW6	<0.002	<0.004	<0.004	<0.0002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002

Statistical Summary

Statistical Summary	n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.004	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.002	0.002	0.002	0.002	0.002	0.004	0.004	0.004	0.002	0.002	0.002	0.002	0.002	0.002
Median Concentration	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001
Standard Deviation	0.002	0.002	0.002	0.002	0.002	0.004	0.004	0.004	0.002	0.002	0.002	0.002	0.002	0.002
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Statistical Summary	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.002	<0.004	<0.004	<0.0002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.0005	<0.002
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.01	<0.02	<0.02	<0.0002	<0.005	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	<0.0025	<0.01
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.002	0.004	0.004	0.0001	0.0025	0.002	0.002	0.002	0.002	0.0025	0.0025	0.0025	0.0025	0.0005	0.002
Median Concentration	0.001	0.002	0.002	0.0001	0.0025	0.001	0.001	0.001	0.001	0.0025	0.0025	0.0025	0.0025	0.00025	0.001
Standard Deviation	0.002	0.004	0.004	0	0	0.002	0.002	0.002	0.002	0	0	0	0	0.0005	0.002
Number of Guideline Exceedances	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Some Analytes are missing from this Combined Compound.
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

						Heavy Metals								Herbicides
						Arsenic (Filtered)	Cadmium (Filtered)	Chromium (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Pronamide
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.001	0.0001	0.001	0.001	0.001	0.0001	0.001	0.005	0.002
Human Health - Drinking Water/Aesthetic/Pesticides						0.007	0.002		1	0.01	0.001	0.02	3	0.002
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode									
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	0.002	<0.0001	<0.001	0.004	<0.001	<0.0001	0.002	0.01	<0.002
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	0.002	<0.005	<0.002
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	0.002	<0.0001	<0.001	<0.001	<0.001	<0.0001	0.003	0.006	<0.01
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	0.001	0.0004	<0.001	0.002	<0.001	<0.0001	0.004	0.026	<0.002
Statistical Summary														
Number of Results						4	4	4	4	4	4	4	4	4
Number of Detects						4	1	0	2	0	0	4	3	0
Minimum Concentration						0.001	<0.0001	<0.001	<0.001	<0.001	<0.0001	0.002	<0.005	<0.002
Minimum Detect						0.001	0.0004	ND	0.002	ND	ND	0.002	0.006	ND
Maximum Concentration						0.002	0.0004	<0.001	0.004	<0.001	<0.0001	0.004	0.026	<0.01
Maximum Detect						0.002	0.0004	ND	0.004	ND	ND	0.004	0.026	ND
Average Concentration						0.0015	0.00014	0.0005	0.0018	0.0005	0.00005	0.0028	0.011	0.002
Median Concentration						0.0015	0.00005	0.0005	0.00125	0.0005	0.00005	0.0025	0.008	0.001
Standard Deviation						0.00058	0.00018	0	0.0017	0	0	0.00096	0.01	0.002
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	1
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0

	MAH (including BTEX)																	
	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total)	Total MAHs	Total BTEX
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.005	0.001	0.002	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.002		0.002	0.002	0.002		0.001
Human Health - Drinking Water/Aesthetic/Pesticides			0.001	0.003						0.004		0.025				0.02		
SW3	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011[#2]	<0.002	<0.002	<0.002	<0.016[#2]	<0.001
SW4	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011[#2]	<0.002	<0.002	<0.002	<0.016[#2]	<0.001
SW5	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011[#2]	<0.002	<0.002	<0.002	<0.016[#2]	<0.001
SW6	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	0.0075[#1]	0.002	<0.002	0.002	0.01[#1]	0.002
Statistical Summary																		
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1
Minimum Concentration	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	0.0075	<0.002	<0.002	<0.002	0.01	<0.001
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0075	0.002	ND	0.002	0.01	0.002
Maximum Concentration	<0.005	<0.005	<0.001	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.011	0.002	<0.002	0.002	<0.016	0.002
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0075	0.002	ND	0.002	0.01	0.002
Average Concentration	0.0025	0.0025	0.0005	0.001	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.001	0.006	0.0013	0.001	0.0013	0.0085	0.00088
Median Concentration	0.0025	0.0025	0.0005	0.001	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.001	0.0055	0.001	0.001	0.001	0.008	0.0005
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0.001	0.0005	0	0.0005	0.001	0.00075
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

														Organochlorine Pesticides																		
														a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total)	b-BHC	cis-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total)	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor & heptachlor epoxide (Sum of total)	Heptachlor epoxide	Methoxychlor	Organochlorine Pesticides	Other Organochlorine Pesticides (NWRG)
														mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/l	mg/L	mg/L	mg/l	mg/l
LOR														0.0005	0.0005		0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002		0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005		0.0005	0.002		
Human Health - Drinking Water/Aesthetic/Pesticides																**0.0003**							**0.02**		**0.0003**							**0.02**		**0.0003**		**0.3**		
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																																		
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003[#3]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.002	<0.013[#2]	<0.009[#2]
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003[#3]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.002	<0.013[#2]	<0.009[#2]
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	<0.0025	<0.0025	<0.005[#1]	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.01	<0.015[#3]	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.005[#1]	<0.0025	<0.01	<0.065[#2]	<0.045[#2]
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003[#3]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.002	<0.013[#2]	<0.009[#2]
Statistical Summary																																							
Number of Results						4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	<0.013	<0.009
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.0025	<0.0025	<0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.01	<0.015	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.005	<0.0025	<0.01	<0.065	<0.045
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.0005	0.0005	0.001	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.001	0.0005	0.002	0.013	0.009
Median Concentration						0.00025	0.00025	0.0005	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.001	0.0015	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.0005	0.00025	0.001	0.0065	0.0045
Standard Deviation						0.0005	0.0005	0.001	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.003	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.001	0.0005	0.002	0.013	0.009
Number of Guideline Exceedances						0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

CFA Training College, Fiskville
Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

									Organophosphorous Pesticides																PFOS/PFOA		
									Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS
									mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR									0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.002	0.002	0.0005	0.0005	0.0001	0.00002	0.00002
Human Health - Drinking Water/Aesthetic/Pesticides									**0.003**	**0.01**	**0.0005**	**0.005**	**0.01**		**0.001**	**0.001**	**0.05**	**0.003**	**0.0003**			**0.1**	**0.001**	**0.01**	**0.0005**			**0.0004**	**0.0002**
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																								
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005	0.214	**0.0082**	**0.115**
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005	0.222	**0.00888**	**0.153**
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005				<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.01	<0.01	<0.01	<0.0025	<0.0025	0.274	**0.0132**	**0.202**
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005	0.192	**0.0113**	**0.122**
Statistical Summary																													
Number of Results									4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects									0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4
Minimum Concentration									<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.002	<0.0005	<0.0005	0.192	0.0082	0.115
Minimum Detect									ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.192	0.0082	0.115
Maximum Concentration									<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.01	<0.01	<0.01	<0.0025	<0.0025	0.274	0.0132	0.202
Maximum Detect									ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.274	0.0132	0.202
Average Concentration									0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.002	0.002	0.0005	0.0005	0.23	0.01	0.15
Median Concentration									0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.001	0.001	0.001	0.00025	0.00025	0.218	0.01009	0.1375
Standard Deviation									0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.002	0.002	0.002	0.0005	0.0005	0.035	0.0023	0.04
Number of Guideline Exceedances									0	0	1	0	0	0	1	1	0	0	4	0	0	0	4	0	1	0	0	4	4
Number of Guideline Exceedances(Detects Only)									0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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Checked by: NMC

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Table H4 - Surface Water Results - Dams 1-4

						PAH																PAH-Others				Pesticides-Others			Phenolics				
						Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	2-Chloronaphthalene	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Carbazole	Chlorobenzilate	Demeton-s-methyl	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	Phenol
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0005	0.002	0.002	0.002	0.004	0.002
Human Health - Drinking Water/Aesthetic/Pesticides										0.00001																							0.002
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																												
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01	<0.01	<0.024	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0025	<0.01	<0.01	<0.01	<0.02	<0.01
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002
Statistical Summary																																		
Number of Results						4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0005	<0.002	<0.002	<0.002	<0.004	<0.002
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01	<0.01	<0.024	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0025	<0.01	<0.01	<0.01	<0.02	<0.01
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.0014	0.002	0.002	0.0049	0.002	0.002	0.002	0.002	0.002	0.002	0.0005	0.002	0.002	0.002	0.004	0.002
Median Concentration						0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0025	0.001	0.001	0.001	0.001	0.001	0.001	0.00025	0.001	0.001	0.001	0.002	0.001
Standard Deviation						0.002	0.002	0.002	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.00075	0.002	0.002	0.0048	0.002	0.002	0.002	0.002	0.002	0.002	0.0005	0.002	0.002	0.002	0.004	0.002
Number of Guideline Exceedances						0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

						Phenolics-Halogenated							Phthalates							Polychlorinated Biphenyls	Solvents				
						2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Bis(2-ethylhexyl) phthalate	Butylbenzyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	PCB (Sum of Total-Lab Reported)	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Isophorone	Vinyl acetate
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.005	0.002	0.002	0.002	0.002	0.002	0.001	0.05	0.05	0.05	0.002	0.05
Human Health - Drinking Water/Aesthetic/Pesticides							0.002	0.2		0.3		0.01	0.01											
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode																			
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.05	<0.05	<0.05	<0.01	<0.05
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
Statistical Summary																								
Number of Results						4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.004	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.05	<0.05	<0.05	<0.002	<0.05
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.05	<0.05	<0.05	<0.01	<0.05
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.01	0.002	0.002	0.002	0.002	0.002	0.001	0.025	0.025	0.025	0.002	0.025
Median Concentration						0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.005	0.001	0.001	0.001	0.001	0.001	0.0005	0.025	0.025	0.025	0.001	0.025
Standard Deviation						0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.01	0.002	0.002	0.002	0.002	0.002	0.001	0	0	0	0.002	0
Number of Guideline Exceedances						0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

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Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

SVOCs

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin
						mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.004	0.002
Human Health - Drinking Water/Aesthetic/Pesticides																									
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
Statistical Summary																									
Number of Results						4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.004	0.002
Median Concentration						0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.002	0.001
Standard Deviation						0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.004	0.002
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Petroleum Hydrocarbons

Location_Code	TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH+C10 - C36 (Sum of total) (Calculated)	TPH+C10 - C36 (Sum of total) (Lab Reported)	TPH+C10 - C40 (Sum of total) (Lab Reported)	C6 - C10 Fraction	C6 - C10 Fraction minus BTEX (F1)	>C10 - C16 Fraction	>C16 - C34 Fraction	>C34 - C40 Fraction
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.02	0.05	0.1	0.05		0.05	0.1	0.02	0.02	0.1	0.1	0.1
Human Health - Drinking Water/Aesthetic/Pesticides	15									0.09	0.09	0.09
SW3	<0.02	<0.05	<0.1	<0.06	<0.21[#6]	<0.05	<0.1	<0.02	<0.02	<0.1	<0.13	<0.1
SW4	<0.02	<0.05	0.29	<0.08	0.355[#5]	0.29	0.32	<0.02	<0.02	<0.1	**0.32**	<0.1
SW5	<0.02	<0.05	1.19	0.33	1.545[#5]	1.52	1.62	<0.02	<0.02	**0.11**	**1.36**	**0.15**
SW6	0.03	0.16	2.1	0.26	2.52[#5]	2.52	2.58	0.04	0.04	**0.47**	**2**	**0.11**
Statistical Summary												
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	1	1	3	2	3	3	3	1	1	2	3	2
Minimum Concentration	<0.02	<0.05	<0.1	<0.06	<0.21	<0.05	<0.1	<0.02	<0.02	<0.1	<0.13	<0.1
Minimum Detect	0.03	0.16	0.29	0.26	0.355	0.29	0.32	0.04	0.04	0.11	0.32	0.11
Maximum Concentration	0.03	0.16	2.1	0.33	2.52	2.52	2.58	0.04	0.04	0.47	2	0.15
Maximum Detect	0.03	0.16	2.1	0.33	2.52	2.52	2.58	0.04	0.04	0.47	2	0.15
Average Concentration	0.015	0.059	0.91	0.17	1.1	1.1	1.1	0.018	0.018	0.17	0.94	0.09
Median Concentration	0.01	0.025	0.74	0.15	0.95	0.905	0.97	0.01	0.01	0.08	0.84	0.08
Standard Deviation	0.01	0.068	0.93	0.15	1.1	1.2	1.2	0.015	0.015	0.2	0.9	0.049
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	4	4	4
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	2	3	2

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H4 - Surface Water Results - Dams 1-4

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode
SW3	SW3-1043/6003	Dam 4	8/02/2012	EM1201357	EM1201357003
SW4	SW4-1034/6004	Dam 3	8/02/2012	EM1201357	EM1201357004
SW5	SW5-1025/6005	Dam 2	8/02/2012	EM1201357	EM1201357005
SW6	SW6-1016/6006	Dam 1	8/02/2012	EM1201357	EM1201357006

Volatile Organic Compounds

	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Human Health - Drinking Water/Aesthetic/Pesticides							0.001		0.003	0.03										
SW3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW4	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Statistical Summary																				
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Median Concentration	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Standard Deviation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L	mg/L	mg/L	mg/L
LOR	0.005	0.005	0.05	0.005	0.005		0.005	0.05	0.005	0.05	0.005	0.05	0.002	0.002	0.005		0.005	0.005	0.005	0.05	0.05
Human Health - Drinking Water/Aesthetic/Pesticides					0.003								0.0007						0.05		0.0003
SW3	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108[#4]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056[#4]	<0.005	<0.005	<0.005	<0.05	<0.05
SW4	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108[#4]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056[#4]	<0.005	<0.005	<0.005	<0.05	<0.05
SW5	<0.005	<0.005	<0.05	<0.005	<0.005	<0.14[#4]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.01	<0.01	<0.005	<0.08[#4]	<0.005	<0.005	<0.005	<0.05	<0.05
SW6	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108[#4]	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056[#4]	<0.005	<0.005	<0.005	<0.05	<0.05
Statistical Summary																					
Number of Results	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.005	<0.005	<0.05	<0.005	<0.005	<0.108	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.002	<0.002	<0.005	<0.056	<0.005	<0.005	<0.005	<0.05	<0.05
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.005	<0.05	<0.005	<0.005	<0.14	<0.005	<0.05	<0.005	<0.05	<0.005	<0.05	<0.01	<0.01	<0.005	<0.08	<0.005	<0.005	<0.005	<0.05	<0.05
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.0025	0.0025	0.025	0.0025	0.0025	0.058	0.0025	0.025	0.0025	0.025	0.0025	0.025	0.002	0.002	0.0025	0.031	0.0025	0.0025	0.0025	0.025	0.025
Median Concentration	0.0025	0.0025	0.025	0.0025	0.0025	0.054	0.0025	0.025	0.0025	0.025	0.0025	0.025	0.001	0.001	0.0025	0.028	0.0025	0.0025	0.0025	0.025	0.025
Standard Deviation	0	0	0	0	0	0.008	0	0	0	0	0	0	0.002	0.002	0	0.006	0	0	0	0	0
Number of Guideline Exceedances	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect or
#2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used. Som
#3 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#4 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

XX = reported concentration exceeds Human Health Criteria for Drinking Water/Aesthetic/Pesticides

Compiled by:NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate
						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
LOR						0.5	0.5	0.5	0.5	0.5	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	0.01
Ecological (ISQG High)																							
Ecological (ISQG Low (Trigger Value))																							
Human Health - Industrial																							
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<5	<0.01
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013																		
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																		
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014																		
Statistical Summary																							
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<2.5	<2.5	<2.5	<2.5	<2.5	<5	<5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<5	<0.01
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																							
Median Concentration						0.75	0.75	0.75	0.75	0.75	1.5	1.5	1.5	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	1.5	0.005
Standard Deviation																							
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location_Code	SampleCode	Halogenated Benzenes										
		1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	Hexachlorobenzene	Pentachlorobenzene
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
LOR		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0005	0.5
Ecological (ISQG High)												
Ecological (ISQG Low (Trigger Value))												
Human Health - Industrial												
SD1	EM1201358001		<2.5	<2.5	<2.5	<2.5					<0.0005	<2.5
SD1	EM1201358013	<1	<1	<1	<1	<1	<1	<1	<1	<1		
SD1	EM1201412001											
SD2	EM1201358002		<0.5	<0.5	<0.5	<0.5					<0.0005	<0.5
SD2	EM1201358014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Statistical Summary												
Number of Results		2	4	4	4	4	2	2	2	2	2	2
Number of Detects		0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0005	<0.5
Minimum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration		<1	<2.5	<2.5	<2.5	<2.5	<1	<1	<1	<1	<0.0005	<2.5
Maximum Detect		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration			0.56	0.56	0.56	0.56						
Median Concentration		0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.00025	0.75
Standard Deviation			0.47	0.47	0.47	0.47						
Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)		0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Ecological criteria (high)
XX = reported concentration exceeds Ecological criteria (low)
XX = reported concentration exceeds Human Health Criteria for Industrial land use

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

						Heavy Metals								Herbicides	MAH (including BTEX)																			
						Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Pronamide	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	P-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total)	Total MAHs	Total BTEX
						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
LOR						1	0.1	1	1	1	0.01	1	1	0.5	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			0.2
Ecological (ISQG High)						70	10	370	270	220	1	52	410																				
Ecological (ISQG Low (Trigger Value))						20	1.5	80	65	50	0.15	21	200																				
Human Health - Industrial						500	100	600,000	5000	1500	75	3000	35000		260	10000														2.4		
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																											
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001	8.21	<0.1	67.2	6	14.4	0.02	8.1	24.8	<2.5																			
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013										<1	<1	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5.4 #2	<1	<1	<1	<6.4 #2	<0.4
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																											
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002	<1	<0.1	11.1	3.8	8.1	0.01	4	12	<0.5																			
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014										<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7 #2	<0.5	<0.5	<0.5	<3.2 #2	<0.2
Statistical Summary																																
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						1	0	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<1	<0.1	11.1	3.8	8.1	0.01	4	12	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7	<0.5	<0.5	<0.5	<3.2	<0.2
Minimum Detect						8.21	ND	11.1	3.8	8.1	0.01	4	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						8.21	<0.1	67.2	6	14.4	0.02	8.1	24.8	<2.5	<1	<1	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5.4	<1	<1	<1	<6.4	<0.4
Maximum Detect						8.21	ND	67.2	6	14.4	0.02	8.1	24.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																																
Median Concentration						4.355	0.05	39.15	4.9	11.25	0.015	6.05	18.4	0.75	0.375	0.375	0.15	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	2.025	0.375	0.375	0.375	2.4	0.15
Standard Deviation																																
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Ecological criteria (high)
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CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

						Organochlorine Pesticides																														
						a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor & heptachlor epoxide (Sum of total)	Heptachlor epoxide	Methoxychlor	Organochlorine Pesticides	Other Organochlorine Pesticides (IWRG)	Oxychlordane
						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
LOR						0.0005	0.0005		0.0005	0.00025	0.00025	0.00025	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.00025	0.0005		0.0005	0.0005				0.0005
Ecological (ISQG High)										**0.006**				**0.02**	**0.027**	**0.046**		**0.008**					**0.008**			**0.001**									
Ecological (ISQG Low (Trigger Value))										**0.0005**				**0.002**	**0.0022**	**0.0016**		**0.00002**					**0.00002**			**0.00032**									
Human Health - Industrial								**50**		**250**							**1000**											**50**								
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																															
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001	<0.0005	<0.0005	<0.001 #1	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 #1	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001 #1	<0.0005	<0.0005	<0.01024 #1	<0.00774 #1	<0.0005
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013																															
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																															
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002	<0.0005	<0.0005	<0.001 #1	<0.0005	<0.00025	<0.00025	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005 #1	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.001 #1	<0.0005	<0.0005	<0.01 #1	<0.0075 #1	<0.0005
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014																															
Statistical Summary																																				
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.00025	<0.00025	<0.00025	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00025	<0.0005	<0.001	<0.0005	<0.0005	<0.01	<0.0075	<0.0005
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001	<0.0005	<0.0005	<0.01024	<0.00774	<0.0005
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																																				
Median Concentration						0.00025	0.00025	0.0005	0.00025	0.00014	0.00014	0.00014	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00014	0.00025	0.0005	0.00025	0.00025	0.00506	0.00381	0.00025
Standard Deviation																																				
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Ecological criteria (high)
XX = reported concentration exceeds Ecological criteria (low)
XX = reported concentration exceeds Human Health Criteria for Industrial land use

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

								Organophosphorous Pesticides																		
								Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorfenvinphos E	Chlorpyriphos	Chlorpyriphos-methyl	cis-Chlorfenvinphos	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos
								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
LOR								0.01	0.01	0.01	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ecological (ISQG High)																											
Ecological (ISQG Low (Trigger Value))																											
Human Health - Industrial																											
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																						
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001			<0.016	<0.016	<0.016	<2.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013																						
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																						
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002			<0.012	<0.012	<0.012	<0.5	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014																						
Statistical Summary																											
Number of Results								2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration								<0.012	<0.012	<0.012	<0.5	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Minimum Detect								ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration								<0.016	<0.016	<0.016	<2.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016
Maximum Detect								ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																											
Median Concentration								0.007	0.007	0.007	0.75	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
Standard Deviation																											
Number of Guideline Exceedances								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

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Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

					PFOS/PFOA			PAH																		PAH-Others				Pesticides-Others		
					6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(K)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	2-Chloronaphthalene	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Carbazole	Chlorobenzilate	Demeton-s-methyl
					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
LOR					0.005	0.0005	0.0005	0.5	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.01
Ecological (ISQG High)								0.5	0.64	1.1	1.6	1.6			2.8	0.26	5.1	0.54		2.1	1.5	2.6	45								
Ecological (ISQG Low (Trigger Value))								0.016	0.044	0.085	0.261	0.43			0.384	0.063	0.6	0.019		0.16	0.24	0.665	4								
Human Health - Industrial						2.1	2.1					5					22000					17000	100								
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																										
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001	0.023	0.0028	0.153	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.016
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013															<2											
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																										
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002	0.028	0.0021	0.342	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.012
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014															<1											
Statistical Summary																															
Number of Results					2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2
Number of Detects					2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					0.023	0.0021	0.153	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.012
Minimum Detect					0.023	0.0021	0.153	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					0.028	0.0028	0.342	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.016
Maximum Detect					0.028	0.0028	0.342	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																				0.75											
Median Concentration					0.0255	0.00245	0.2475	0.75	0.75	0.75	0.75	0.75	1.5	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.007
Standard Deviation																				0.46											
Number of Guideline Exceedances					0	0	0	2	2	2	2	2	0	0	2	2	1	2	0	4	2	1	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

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Checked by: NMC

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Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

							Phenolics					Phenolics-Halogenated							Phthalates						Polychlorinated Biphenyls								e Quality Parar		Solvents				
							2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	Phenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Bis(2-ethylhexyl) phthalate	Butylbenzyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1221	PCB (Sum of Total-Lab Reported)	Total Organic Carbon	% Moisture	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Isophorone	Vinyl acetate
LOR							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
							0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	5	0.5	0.5	0.5	0.5	0.5	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	200	1	5	5	5	0.5	5
Ecological (ISQG High)																																							
Ecological (ISQG Low (Trigger Value))																															0.023								
Human Health - Industrial											42500																				50								
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																																		
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001		<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	62900	33.3				<2.5	
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013																													73.4	<10	<10	<10		<10
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																																		
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002		<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	31500	3.1				<0.5	
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014																													27.7	<5	<5	<5		<5
Statistical Summary																																							
Number of Results							2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2	2
Number of Detects							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0
Minimum Concentration							<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	<0.0125	31,500	3.1	<5	<5	<5	<0.5	<5
Minimum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31,500	3.1	ND	ND	ND	ND	ND
Maximum Concentration							<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<25	<2.5	<2.5	<2.5	<2.5	<2.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	62,900	73.4	<10	<10	<10	<2.5	<10
Maximum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	62,900	73.4	ND	ND	ND	ND	ND
Average Concentration																																		34					
Median Concentration							0.75	0.75	0.75	1.5	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	7.5	0.75	0.75	0.75	0.75	0.75	0.007025	0.007025	0.007025	0.007025	0.007025	0.007025	0.007025	0.007025	47,200	30.5	3.75	3.75	3.75	0.75	3.75
Standard Deviation																																		29					
Number of Guideline Exceedances							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Ecological criteria (high)
XX = reported concentration exceeds Ecological criteria (low)
XX = reported concentration exceeds Human Health Criteria for Industrial land use

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

						SVOCs																						Total Petroleum Hydrocarbons						
						2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin	TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH-C10 - C56 (Sum of total) (Calculated)	TPH-C10 - C36 (Sum of total) (Lab Reported)	C6 - C10 Fraction
LOR						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
						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	2.5	0.5	0.5	0.5	0.5	1	0.5	10	3	3	5		3	10
Ecological (ISQG High)																																	
Ecological (ISQG Low (Trigger Value))																																	
Human Health - Industrial																										320	260	2500	6600				
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																												
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<12.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5		<3	138	168	307.5[#3]	306	
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013																					<20						<20
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001																												
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5		<3	111	122	234.5[#3]	233	
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014																					<10						<10
Statistical Summary																																	
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<10	<3	111	122	234.5	233	<10
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	111	122	234.5	233	ND
Maximum Concentration						<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<12.5	<2.5	<2.5	<2.5	<2.5	<5	<2.5	<20	<3	138	168	307.5	306	<20
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	138	168	307.5	306	ND
Average Concentration																																	
Median Concentration						0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	0.75	0.75	0.75	3.75	0.75	0.75	0.75	0.75	1.5	0.75	7.5	1.5	124.5	145	271	269.5	7.5
Standard Deviation																																	
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances (Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Ecological criteria (high)
XX = reported concentration exceeds Ecological criteria (low)
XX = reported concentration exceeds Human Health Criteria for Industrial land use

Prepared by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H5 - Sediment Results - Lake Fiskville

Volatile Organic Compounds

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane
						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
LOR						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Ecological (ISQG High)																			
Ecological (ISQG Low (Trigger Value))																			
Human Health - Industrial																			
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358001														
SD1	SD1 - 1051/8001		8/02/2012	EM1201358	EM1201358013	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SD1	SD1-1051/8001	Lake Fiskville	8/02/2012	EM1201412	EM1201412001														
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358002														
SD2	SD2 - 1052/8002		8/02/2012	EM1201358	EM1201358014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Statistical Summary																			
Number of Results						2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration																			
Median Concentration						0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
Standard Deviation																			
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0

SampleCode	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane
	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
LOR	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5		0.5
Ecological (ISQG High)													
Ecological (ISQG Low (Trigger Value))													
Human Health - Industrial													
EM1201358001												<10[#2]	
EM1201358013	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<24[#2]	<1
EM1201412001													
EM1201358002												<2[#2]	
EM1201358014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<12[#2]	<0.5
Statistical Summary													
Number of Results	2	2	2	2	2	2	2	2	2	2	2	4	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<2	<0.5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1	<24	<1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration												6	
Median Concentration	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	3.75	0.375	0.375	5.5	0.375
Standard Deviation												4.5	
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0

SampleCode	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
	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
LOR	5	0.5	5	0.5	5	0.5	0.5	0.5		0.5	0.5	0.5	5	5
Ecological (ISQG High)														
Ecological (ISQG Low (Trigger Value))														
Human Health - Industrial														
EM1201358001						<2.5	<2.5		<7.5[#2]					
EM1201358013	<10	<1	<10	<1	<10	<1		<1	<13[#2]	<1	<1	<1	<10	<10
EM1201412001														
EM1201358002						<0.5	<0.5		<1.5[#2]					
EM1201358014	<5	<0.5	<5	<0.5	<5	<0.5		<0.5	<6.5[#2]	<0.5	<0.5	<0.5	<5	<5
Statistical Summary														
Number of Results	2	2	2	2	2	4	2	2	4	2	2	2	2	2
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<5	<5
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<10	<1	<10	<1	<10	<2.5	<2.5	<1	<13	<1	<1	<1	<10	<10
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.6			3.6					
Median Concentration	3.75	0.375	3.75	0.375	3.75	0.4	0.8	0.4	3.5	0.4	0.4	0.38	4	3.75
Standard Deviation						0.5			2.4					
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

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Checked by: NMC

Golder Associates

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Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

						n-Nitrosodiethylamine	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-propylamine	n-Nitrosomethylethylamine	1-Naphthylamine	n-Nitrosodiphenylamine & Diphenylamine	2-Nitroaniline	3-Nitroaniline	4-Chloroaniline	4-Nitroaniline	2-methyl-5-nitroaniline	Aniline	Nitrobenzene	Pentachloronitrobenzene	1,3,5-Trinitrobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	Perchlorate	Halogenated Benzenes: 1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene
						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
LOR						0.5	0.5	0.5	0.5	0.5	1	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	0.01	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Human Health - Industrial																																
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																											
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358003	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01		<0.5	<0.5	<0.5	<0.5				
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358015																			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01		<0.5	<0.5	<0.5	<0.5				
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016																			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358005	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01		<0.5	<0.5	<0.5	<0.5				
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358017																			<1	<1	<1	<1	<1	<1	<1	<1	<1
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01		<0.5	<0.5	<0.5	<0.5				
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018																			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358007	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<0.01		<7.5	<7.5	<7.5	<7.5				
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019																			<1	<1	<1	<1	<1	<1	<1	<1	<1
SD7	SD7-1027/8007	Dam 2	8/02/2012	EM1201412	EM1201412002																											
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<0.01		<7.5	<7.5	<7.5	<7.5				
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020																			<2	<2	<2	<2	<2	<2	<2	<2	<2
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																											
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358009	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<0.01		<7.5	<7.5	<7.5	<7.5				
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021																			<2	<2	<2	<2	<2	<2	<2	<2	<2
SD9	SD9-1019/8009	Dam 1	8/02/2012	EM1201412	EM1201412004																											
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<0.01		<7.5	<7.5	<7.5	<7.5				
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022																			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																											
Statistical Summary																																
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	16	16	16	16	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<15	<0.01	<2	<7.5	<7.5	<7.5	<7.5	<2	<2	<2	<2
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						2	2	2	2	2	4	4	4	2	2	2	2	2	2	2	4	4	0.005	0.5	1.3	1.3	1.3	1.3	0.5	0.5	0.5	0.5
Median Concentration						2	2	2	2	2	4	4	4	2	2	2	2	2	2	2	4	4	0.005	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375
Standard Deviation						1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7	3.7	0	0.33	1.5	1.5	1.5	1.5	0.33	0.33	0.33	0.33
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

								Heavy Metals							Herbicides	MAH (including BTEX)																				
								Hexachlorobenzene	Pentachlorobenzene	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Pronamide	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Xylenes (Sum of total)	Total MAHs	Total BTEX
								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
LOR								0.0005	0.5	1	0.1	1	1	1	0.01	1	1	0.5	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		0.2
Human Health - Industrial										**500**	**100**	**600,000**	**5000**	**1500**	**75**	**3000**	**35000**		**260**	**10000**														**2.4**		
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																														
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<0.0005	<0.5	1.83	<0.1	23	5.2	12.2	0.01	3.4	4	<0.5																			
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015													<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.0005	<0.5	3.04	<0.1	35.9	5.3	10.9	0.01	8.2	6.8	<0.5																			
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016													<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<0.0005	<0.5	1.8	<0.1	26.2	4.6	7.9	<0.01	8	7.8	<0.5																			
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017													<1	<1	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5.4[#3]	<1	<1	<1	<6.4[#3]	<0.4
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.00062	<0.5	<1	<0.1	6.5	1.9	2.3	<0.01	2.6	6.3	<0.5																			
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018													<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7[#3]	<0.5	<0.5	<0.5	<3.2[#3]	<0.2
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<0.00062	<7.5	<1	<0.1	9.5	5.6	3.7	0.01	12.2	34.8	<7.5																			
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019													<1	<1	<0.4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5.4[#3]	<1	<1	<1	<6.4[#3]	<0.4
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																														
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<0.00062	<7.5	1.94	0.5	14.6	22	18.6	0.02	10.6	357	<7.5																			
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020													<2	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10.8[#3]	<2	<2	<2	<12.8[#3]	<0.8
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																														
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<0.00062	<7.5	1.97	0.2	15.8	31.3	44	0.01	18.5	399	<7.5																			
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021													<2	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10.8[#3]	<2	<2	<2	<12.8[#3]	<0.8
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																														
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<0.00062	<7.5	1.35	0.2	22.1	12.6	81.7	<0.01	9.7	136	<7.5																			
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022													3	1.3	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.65[#2]	1.4	<0.5	1.4	3.9[#2]	1.4
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																														
Statistical Summary																																			
Number of Results								8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects								0	0	6	3	8	8	8	5	8	8	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1
Minimum Concentration								<0.0005	<0.5	<1	<0.1	6.5	1.9	2.3	<0.01	2.6	4	<0.5	<0.5	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.7	<0.5	<0.5	<0.5	<3.2	<0.2
Minimum Detect								ND	ND	1.35	0.2	6.5	1.9	2.3	0.01	2.6	4	ND	3	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.65	1.4	ND	1.4	3.9	1.4
Maximum Concentration								<0.00062	<7.5	3.04	0.5	35.9	31.3	81.7	0.02	18.5	399	<7.5	3	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<10.8	<2	<2	<2	<12.8	1.4
Maximum Detect								ND	ND	3.04	0.5	35.9	31.3	81.7	0.02	18.5	399	ND	3	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.65	1.4	ND	1.4	3.9	1.4
Average Concentration								0.00029	2	1.6	0.14	19	11	23	0.0094	9.2	119	2	0.84	0.63	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	3	0.64	0.5	0.64	3.5	0.36
Median Concentration								0.00031	2	1.815	0.05	18.95	5.45	11.55	0.01	8.95	21.3	2	0.5	0.5	0.15	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	2.7	0.5	0.375	0.5	3.2	0.2
Standard Deviation								0.000031	1.9	0.84	0.16	9.6	10	27	0.005	5	166	1.9	0.93	0.41	0.13	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	1.7	0.44	0.33	0.44	2	0.44
Number of Guideline Exceedances								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

						Organochlorine Pesticides																										
						a-BHC	Aldrin	Aldrin & Dieldrin (Sum of total)	b-BHC	Chlordane (Sum of total)	cis-Chlordane	trans-Chlordane	d-BHC	DDD	DDE	DDT	DDT+DDE+DDD (Sum of total)	Dieldrin	Endosulfan	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC	Heptachlor	Heptachlor & heptachlor epoxide (Sum of total)	Heptachlor epoxide
						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
LOR						0.0005	0.0005		0.0005	0.00025	0.00025	0.00025	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.00025	0.0005		0.0005
Human Health - Industrial								**50**		**250**							**1000**												**50**	
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																									
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001[#1]	<0.0005
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015																									
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001[#1]	<0.0005
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016																									
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<0.0005	<0.0005	<0.001[#1]	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005[#1]	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001[#1]	<0.0005
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017																									
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.00062	<0.00062	<0.00124[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124[#1]	<0.00062
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018																									
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<0.00062	<0.00062	<0.00124[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124[#1]	<0.00062
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019																									
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																									
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<0.00062	<0.00062	<0.00124[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124[#1]	<0.00062
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020																									
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																									
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<0.00062	<0.00062	<0.00124[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124[#1]	<0.00062
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021																									
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																									
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<0.00062	<0.00062	<0.00124[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062[#1]	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124[#1]	<0.00062
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022																									
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																									
Statistical Summary																														
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.0005	<0.0005	<0.001	<0.0005	<0.00031	<0.00031	<0.00031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00031	<0.0005	<0.001	<0.0005
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<0.00062	<0.00062	<0.00124	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00062	<0.00124	<0.00062
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.00029	0.00029	0.00058	0.00029	0.00025	0.00025	0.00025	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00025	0.00029	0.00058	0.00029
Median Concentration						0.00031	0.00031	0.00062	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00062	0.00031
Standard Deviation						0.000031	0.000031	0.000062	0.000031	0.00008	0.00008	0.00008	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.000031	0.00008	0.000031	0.000062	0.000031
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

								Organochlorine Pesticides				Organophosphorous Pesticides																								PFOS/PFOA		
								Methoxychlor	Organochlorine Pesticides	Other Organochlorine Pesticides (IWRG)	Oxychlordane	Azinphos-methyl	Bromophos-ethyl	Carbophenothion	Chlorfenvinphos	Chlorfenvinphos E	Chlorpyriphos	Chlorpyriphos-methyl	cis-Chlorfenvinphos	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenamiphos	Fenthion	Malathion	Parathion-methyl	Monocrotophos	Parathion	Pirimphos-ethyl	Prothiofos	6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS
								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
LOR								0.0005			0.0005	0.01	0.01	0.01	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.0005	0.0005
Human Health - Industrial																																	**2.1**	**2.1**
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																														
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<0.0005	<0.01024#1	<0.00774#1	<0.0005	<0.016	<0.016	<0.016	<0.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.26	0.0079	0.495
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015																														
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.0005	<0.01024#1	<0.00774#1	<0.0005	<0.016	<0.016	<0.016	<0.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.174	0.005	0.773
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016																														
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<0.0005	<0.01024#1	<0.00774#1	<0.0005	<0.016	<0.016	<0.016	<0.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.302	0.0127	0.534
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017																														
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.00062	<0.01364#1	<0.01054#1	<0.00062	<0.031	<0.031	<0.031	<0.5	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	0.4	0.0148	0.75
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018																														
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<0.00062	<0.01364#1	<0.01054#1	<0.00062	<0.031	<0.031	<0.031	<7.5	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	0.237	0.0224	1.92
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019																														
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																														
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<0.00062	<0.01364#1	<0.01054#1	<0.00062	<0.031	<0.031	<0.031	<7.5	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	0.389	0.0662	**7.53**
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020																														
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																														
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<0.00062	<0.01364#1	<0.01054#1	<0.00062	<0.25	<0.25	<0.25	<7.5	<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	<0.25	<0.25	<0.25	<0.25	0.719	0.164	**13.7**
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021																														
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																														
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<0.00062	<0.01364#1	<0.01054#1	<0.00062	<0.25	<0.25	<0.25	<7.5	<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	<0.25	<0.25	<0.25	<0.25	0.882	1.24	**66**
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022																														
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																														
Statistical Summary																																			
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	8
Minimum Concentration						<0.0005	<0.01024	<0.00774	<0.0005	<0.016	<0.016	<0.016	<0.5	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	<0.016	0.174	0.005	0.495
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.174	0.005	0.495
Maximum Concentration						<0.00062	<0.01364	<0.01054	<0.00062	<0.25	<0.25	<0.25	<7.5	<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	<0.25	<0.25	<0.25	<0.25	0.882	1.24	66
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.882	1.24	66
Average Concentration						0.00029	0.0062	0.0047	0.00029	0.04	0.04	0.04	2	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.42	0.19	11
Median Concentration						0.00031	0.00682	0.00527	0.00031	0.0155	0.0155	0.0155	2	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.0155	0.3455	0.0186	1.3465
Standard Deviation						0.000031	0.00088	0.00072	0.000031	0.053	0.053	0.053	1.9	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.25	0.43	23
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

						PAH																PAH-Others				Pesticides-Others			Phenolics				
						Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAH (Sum of Common 16 PAHs - Lab Reported)	2-Chloronaphthalene	2-Methylnaphthalene	3-Methylcholanthrene	7,12-Dimethylbenz(a)anthracene	Carbazole	Chlorobenzilate	Demeton-s-methyl	2,4-Dimethylphenol	2-Methylphenol	2-Nitrophenol	3- & 4- Methylphenol	Phenol
						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
LOR						0.5	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	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.01	0.5	0.5	0.5	0.5	0.5
Human Health - Industrial										5					22000					17000	100												42500
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode																												
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.016	<0.5	<0.5	<0.5	<1	<0.5
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015													<1															
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.016	<0.5	<0.5	<0.5	<1	<0.5
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016													<1															
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.016	<0.5	<0.5	<0.5	<1	<0.5
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017													<2															
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.031	<0.5	<0.5	<0.5	<1	<0.5
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018													<1															
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<0.031	<7.5	<7.5	<7.5	<15	<7.5
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019													<2															
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																												
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<0.031	<7.5	<7.5	<7.5	<15	<7.5
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020													<4															
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																												
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	10.3	<7.5	<7.5	<7.5	<7.5	19.6	29.9	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<0.25	<7.5	<7.5	<7.5	<15	<7.5
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021													<4															
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																												
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	10.2	10.2	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<0.25	<7.5	<7.5	<7.5	<15	<7.5
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022													<1															
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																												
Statistical Summary																																	
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	16	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.016	<0.5	<0.5	<0.5	<1	<0.5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	10.3	ND	ND	ND	ND	10.2	10.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	10.3	<7.5	<7.5	<7.5	<7.5	19.6	29.9	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<0.25	<7.5	<7.5	<7.5	<15	<7.5
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	10.3	ND	ND	ND	ND	19.6	29.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						2	2	2	2	2	4	2	2	2	2.8	2	2	1.5	2	4.8	6.1	2	2	2	2	2	2	0.04	2	2	2	4	2
Median Concentration						2	2	2	2	2	4	2	2	2	2	2	2	0.75	2	2	2	2	2	2	2	2	2	0.0155	2	2	2	4	2
Standard Deviation						1.9	1.9	1.9	1.9	1.9	3.7	1.9	1.9	1.9	3.5	1.9	1.9	1.4	1.9	6.9	10	1.9	1.9	1.9	1.9	1.9	1.9	0.053	1.9	1.9	1.9	3.7	1.9
Number of Guideline Exceedances						0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

						Phenolics-Halogenated							Phthalates							Polychlorinated Biphenyls								e Quality Parar		Solvents				
						2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Bis(2-ethylhexyl) phthalate	Butylbenzyl phthalate	Diethyl phthalate	Dimethyl phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1221	PCB (Sum of Total-Lab Reported)	Total Organic Carbon	Moisture	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Isophorone	Vinyl acetate
						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
LOR						0.5	0.5	0.5	0.5	0.5	0.5	1	5	0.5	0.5	0.5	0.5	0.5	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	200	1	5	5	5	0.5	5
Human Health - Industrial																										50							
Location_Code	**Field_ID**	**Location**	**Sampled_Date_Time**	**SDG**	**SampleCode**																												
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	6300	14.5				<0.5	
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015																							41.2	<5	<5	<5		<5
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	6200	11.2				<0.5	
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016																							44.1	<5	<5	<5		<5
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	14200	19.6				<0.5	
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017																							63.1	<10	<10	<10		<10
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	42500	7.6				<0.5	
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018																							42.1	<5	<5	<5		<5
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<75	<7.5	<7.5	<7.5	<7.5	<7.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	29000	10.7				<7.5	
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019																							67.8	<10	<10	<10		<10
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																												
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<75	<7.5	<7.5	<7.5	<7.5	<7.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	88800	43.5				<7.5	
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020																							81.6	<20	<20	<20		<20
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																												
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<75	<7.5	<7.5	<7.5	<7.5	<7.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	91900	13.6				<7.5	
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021																							80.6	<20	<20	<20		<20
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																												
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<75	<7.5	<7.5	<7.5	<7.5	<7.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	19500	9.2				<7.5	
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022																							39.8	<5	<5	<5		<5
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																												
Statistical Summary																																	
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	16	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	16	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	<0.0156	6,200	7.6	<5	<5	<5	<0.5	<5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,200	7.6	ND	ND	ND	ND	ND
Maximum Concentration						<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<75	<7.5	<7.5	<7.5	<7.5	<7.5	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	<0.0312	91,900	81.6	<20	<20	<20	<7.5	<20
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	91,900	81.6	ND	ND	ND	ND	ND
Average Concentration						2	2	2	2	2	2	4	20	2	2	2	2	2	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	37,300	37	5	5	5	2	5
Median Concentration						2	2	2	2	2	2	4	20	2	2	2	2	2	0.0156	0.0156	0.0156	0.0156	0.0156	0.0156	0.0156	0.0156	24,250	40.5	3.75	3.75	3.75	2	3.75
Standard Deviation						1.9	1.9	1.9	1.9	1.9	1.9	3.7	19	1.9	1.9	1.9	1.9	1.9	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	34,863	26	3.3	3.3	3.3	1.9	3.3
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

							SVOCs																				Total Petroleum Hydrocarbons						
							2-(Acetylamino) fluorene	2-Picoline	3,3-Dichlorobenzidine	4-(Dimethylamino) azobenzene	4-Aminobiphenyl	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	4-Nitroquinoline-n-oxide	Acetophenone	Azobenzene	Bis(2-chloroethoxy) methane	Bis(2-chloroisopropyl) ether	Dibenzofuran	Hexachlorocyclopentadiene	Hexachloropropene	Methapyrilene	n-Nitrosomorpholine	N-Nitrosopiperidine	n-Nitrosopyrrolidine	Phenacetin	TPH C 6 - C 9 Fraction	TPH C10 - C14 Fraction	TPH C15 - C28 Fraction	TPH C29-C36 Fraction	TPH+C10 - C36 (Sum of total) (Calculated)	TPH+C10 - C36 (Sum of total) (Lab Reported)	C6 - C10 Fraction
							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
LOR							0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	2.5	0.5	0.5	0.5	0.5	1	0.5	10	3	3	5		3	10
Human Health - Industrial																											320	260	2500	6600			
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode																													
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5		<3	26	45	72.5[#4]	71	
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015																						<10						<10
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5		<3	56	67	124.5[#4]	123	
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016																						<10						<10
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5		10	84	88	182[#4]	182	
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017																						<20						<20
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5		11	129	147	287[#4]	287	
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018																						<10						<10
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007		<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<37.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5		<6	169	126	298[#4]	295	
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019																						<20						<20
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																													
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008		<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<37.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5		685	3720	270	4675[#4]	4680	
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020																						244						343
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																													
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009		<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<37.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5		1550	19300	792	21642[#4]	21600	
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021																						166						221
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																													
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010		<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<37.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5		214	1860	450	2524[#4]	2520	
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022																						71						96
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																													
Statistical Summary																																		
Number of Results							8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8	8	8	8	3
Minimum Concentration							<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<10	<3	26	45	72.5	71	<10
Minimum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71	10	26	45	72.5	71	96
Maximum Concentration							<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	<7.5	<7.5	<37.5	<7.5	<7.5	<7.5	<7.5	<15	<7.5	244	1,550	19,300	792	21,642	21,600	343
Maximum Detect							ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	244	1,550	19,300	792	21,642	21,600	343
Average Concentration							2	2	2	2	2	2	2	2	2	4	2	2	2	10	2	2	2	2	4	2	65	310	3,168	248	3,726	3,720	87
Median Concentration							2	2	2	2	2	2	2	2	2	4	2	2	2	10	2	2	2	2	4	2	10	10.5	149	136.5	292.5	291	10
Standard Deviation							1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7	1.9	1.9	1.9	9.4	1.9	1.9	1.9	1.9	3.7	1.9	92	554	6,650	257	7,424	7,410	129
Number of Guideline Exceedances							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
Number of Guideline Exceedances(Detects Only)							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

CFA Training College, Fiskville
Preliminary Site Investigation

Table H6 - Sediment Results - Dams 1-4

Volatile Organic Compounds

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2,3-Trichloropropane	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-dichloroethene	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	1,1-Dichloropropene	cis-1,3-Dichloropropene	trans-1,3-dichloropropene	cis-1,4-Dichloro-2-butene	trans-1,4-Dichloro-2-butene	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride
						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
LOR						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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
Human Health - Industrial																														
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003																									
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004																									
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005																									
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006																									
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007																									
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<10	<1	<1
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																									
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008																									
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																									
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009																									
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																									
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010																									
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																									
Statistical Summary																														
Number of Results						8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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
Median Concentration						0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	3.75	0.375	0.375
Standard Deviation						0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	3.3	0.33	0.33
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Hexachloroethane	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	Trichlorofluoromethane	Vinyl chloride
						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
LOR							0.5	5	0.5	5	0.5	5	0.5	0.5	0.5		0.5	0.5	0.5	5	5
Human Health - Industrial																					
SD3	SD3 - 1043/8003	Dam 4	8/02/2012	EM1201358	EM1201358003	<2[#3]							<0.5	<0.5		<1.5[#3]					
SD3	SD3 - 1043/8003		8/02/2012	EM1201358	EM1201358015	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5		<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358004	<2[#3]							<0.5	<0.5		<1.5[#3]					
SD4	SD4 - 1044/8004		8/02/2012	EM1201358	EM1201358016	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5		<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
SD5	SD5 - 1035/8005	Dam 3	8/02/2012	EM1201358	EM1201358005	<2[#3]							<0.5	<0.5		<1.5[#3]					
SD5	SD5 - 1035/8005		8/02/2012	EM1201358	EM1201358017	<24[#3]	<1	<10	<1	<10	<1	<10	<1		<1	<13[#3]	<1	<1	<1	<10	<10
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358006	<2[#3]							<0.5	<0.5		<1.5[#3]					
SD6	SD6 - 1036/8006		8/02/2012	EM1201358	EM1201358018	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5		<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
SD7	SD7 - 1027/8007	Dam 2	8/02/2012	EM1201358	EM1201358007	<30[#3]							<7.5	<7.5		<22.5[#3]					
SD7	SD7 - 1027/8007		8/02/2012	EM1201358	EM1201358019	<24[#3]	<1	<10	<1	<10	<1	<10	<1		<1	<13[#3]	<1	<1	<1	<10	<10
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002																
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358008	<30[#3]							<7.5	<7.5		<22.5[#3]					
SD8	SD8 - 1028/8008		8/02/2012	EM1201358	EM1201358020	<48[#3]	<2	<20	<2	<20	<2	<20	<2		<2	<26[#3]	<2	<2	<2	<20	<20
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003																
SD9	SD9 - 1019/8009	Dam 1	8/02/2012	EM1201358	EM1201358009	<30[#3]							<7.5	<7.5		<22.5[#3]					
SD9	SD9 - 1019/8009		8/02/2012	EM1201358	EM1201358021	<48[#3]	<2	<20	<2	<20	<2	<20	<2		<2	<26[#3]	<2	<2	<2	<20	<20
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004																
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358010	<30[#3]							<7.5	<7.5		<22.5[#3]					
SD10	SD10 - 10110/8010		8/02/2012	EM1201358	EM1201358022	<12[#3]	<0.5	<5	<0.5	<5	<0.5	<5	<0.5		<0.5	<6.5[#3]	<0.5	<0.5	<0.5	<5	<5
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005																
Statistical Summary																					
Number of Results						16	8	8	8	8	8	8	16	8	8	16	8	8	8	8	8
Number of Detects						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration						<2	<0.5	<5	<0.5	<5	<0.5	<5	<0.5	<0.5	<0.5	<1.5	<0.5	<0.5	<0.5	<5	<5
Minimum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration						<48	<2	<20	<2	<20	<2	<20	<7.5	<7.5	<2	<26	<2	<2	<2	<20	<20
Maximum Detect						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration						10	0.5	5	0.5	5	0.5	5	1.3	2	0.5	6.3	0.5	0.5	0.5	5	5
Median Concentration						9	0.375	3.75	0.375	3.75	0.375	3.75	0.375	2	0.375	4.875	0.375	0.375	0.375	3.75	3.75
Standard Deviation						7.7	0.33	3.3	0.33	3.3	0.33	3.3	1.5	1.9	0.33	4.8	0.33	0.33	0.33	3.3	3.3
Number of Guideline Exceedances						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Comments
#1 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
#2 ESDAT Combined with Non-Detect Multiplier of 0.5. Some Analytes are missing from this Combined Compound.
#3 ESDAT Combined. Some Analytes are missing from this Combined Compound.
#4 ESDAT Combined with Non-Detect Multiplier of 0.5.

XX = reported concentration exceeds Human Health Criteria for Industrial land use

Compiled by: NC
Checked by: NMC

Golder Associates

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Preliminary Site Assessment

Table H7 - Sediment Results

								PCDD & PCDF																
								1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	2,3,7,8-Tetrachlorooxanthrene	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF	Total TEQ
								pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
CEQG 2001 – Sediment Quality Guidelines (Aquatic Life)																								0.85*
US EPA Regional Screening Levels (Industrial), November 2011																								18
Location_Code	Field_ID	Location	Sampled_Date_Time	SDG	SampleCode																			
SD1	SD1-1051/8001		8/02/2012	EM1201412	EM1201412001	Concentration		<2.5	<2.5	<2.5	<2.5	3.7	84.5	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
						LOR		<2.5	<2.5	<2.5	<2.5	2.5	10.1	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
		Lake Fiskville				WHO-TEF		<1	<0.1	<0.1	<0.1	0.01	0.0003	<0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.0003	
						WHO-TEQ$_2$ (0.5 LOR)		<1.26	<0.13	<0.13	<0.13	0.04	0.03	<0.03	<0.04	<0.38	<0.13	<0.25	<0.13	<0.13	<0.13	<0.01	<0.01	<0	2.92
SD7	SD7-1027/8007		8/02/2012	EM1201412	EM1201412002	Concentration		<2.5	<2.5	<2.5	<2.5	4.4	61.2	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
						LOR		<2.5	<2.5	<2.5	<2.5	2.5	10	<0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5	
						WHO-TEF		<1	<0.1	<0.1	<0.1	0.01	0.0003	<0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.0003	
						WHO-TEQ$_2$ (0.5 LOR)		<1.24	<0.12	<0.12	<0.12	0.04	0.02	<0.02	<0.04	<0.37	<0.12	<0.25	<0.12	<0.12	<0.12	<0.01	<0.01	<0	2.89
		Dam 2																						
SD8	SD8-1028/8008		8/02/2012	EM1201412	EM1201412003	Concentration		<2.5	<2.5	<2.5	2.6	82.1	721	2	<2.5	2.8	3.5	0.6	<2.5	3	<2.5	16	<2.5	14.5	
						LOR		<2.5	<2.5	<2.5	2.5	2.5	10.1	0.5	<2.5	2.5	2.5	0.5	<2.5	2.5	<2.5	2.5	<2.5	5	
						WHO-TEF		<1	<0.1	<0.1	0.1	0.01	0.0003	0.1	<0.03	0.3	0.1	1	<0.1	0.1	<0.1	0.01	<0.01	0.0003	
						WHO-TEQ$_2$ (0.5 LOR)		<1.26	<0.13	<0.13	0.26	0.82	0.22	0.2	<0.04	0.84	0.35	0.56	<0.13	0.3	<0.13	0.16	<0.01	0	5.52
SD9	SD9-1019/8009		8/02/2012	EM1201412	EM1201412004	Concentration		<2.5	<2.5	3.4	3.9	83.6	1,060	1.1	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	13	<2.5	15.2	
						LOR		<2.5	<2.5	2.5	2.5	2.5	10	0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	2.5	<2.5	5	
						WHO-TEF		<1	<0.1	0.1	0.1	0.01	0.0003	0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	0.01	<0.01	0.0003	
						WHO-TEQ$_2$ (0.5 LOR)		<1.25	<0.12	0.34	0.39	0.84	0.32	0.11	<0.04	<0.37	<0.12	<0.25	<0.12	<0.12	<0.12	0.13	<0.01	0	4.66
		Dam 1																						
SD10	SD10-10110/8010		8/02/2012	EM1201412	EM1201412005	Concentration		<2.5	<2.5	2.8	2.9	77.6	1,110	1	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	12.8	<2.5	16.9	
						LOR		<2.5	<2.5	2.5	2.5	2.5	10	0.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	2.5	<2.5	5	
						WHO-TEF		<1	<0.1	0.1	0.1	0.01	0.0003	0.1	<0.03	<0.3	<0.1	<1	<0.1	<0.1	<0.1	0.01	<0.01	0.0003	
						WHO-TEQ$_2$ (0.5 LOR)		<1.25	<0.13	0.28	0.29	0.78	0.33	0.1	<0.04	<0.38	<0.13	<0.25	<0.13	<0.13	<0.13	0.13	<0.01	0.01	4.46

Legend
XX = reported concentration exceeds Ecological criteria

*** SD7, SD8, SD9, SD10 were not compared to ecological criteria or residential criteria as the protection of these benefical uses are not applicable in Dams 1 & 2.**

Prepared by: NC
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H8 - Tree Core Results

					Volatile Organic Compounds																																					
					1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2-Chlorotoluene	4-Chlorotoluene	Bromobenzene	Chlorobenzene	1,2,4-trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Ethylbenzene	Isopropylbenzene	n-Butylbenzene	n-Propylbenzene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene	Toluene	Total BTEX (QLD EPA 1999 Draft)	Xylenes (m & p)	Xylene (o)	Total MAHs	Naphthalene	Methyl Ethyl Ketone	2-Hexanone	4-Methyl-2-pentanone	Vinyl acetate	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
					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	mg/kg	mg/kg
LOR					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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		5	5	5	5	5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Location_Code	**Field_ID**	**Area**	**Sampled_Date_Time**	**SDG**																																						
TC1	TC1/8001	Drum Burial Area	1/03/2012	EM1202311	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<8.8	<2	<2	<10.8	<20	<20	<20	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2
TC2	TC2/8002	Drum Burial Area	1/03/2012	EM1202311	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.6	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<6.6	<1.5	<1.5	<8.1	<15	<15	<15	<15	<15	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
TC3	TC3/8003	Drum Burial Area	1/03/2012	EM1202311	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.5	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<5.3	<1.2	<1.2	<6.5	<12	<12	<12	<12	<12	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
TC7	TC7/8007	Drum Burial Area	1/03/2012	EM1202311	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<8.8	<2	<2	<10.8	<20	<20	<20	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2
Statistical Summary																																									
Number of Results					4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<0.5	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<5.3	<1.2	<1.2	<6.5	<12	<12	<12	<12	<12	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<8.8	<2	<2	<10.8	<20	<20	<20	<20	<20	<2	<2	<2	<2	<2	<2	<2	<2
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.34	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	3.7	0.84	0.84	4.5	8.4	8.4	8.4	8.4	8.4	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Median Concentration					0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.35	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	3.85	0.875	0.875	4.725	8.75	8.75	8.75	8.75	8.75	0.875	0.875	0.875	0.875	0.875	0.875	0.875
Standard Deviation					0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.075	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.86	0.2	0.2	1.1	2	2	2	2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Prepared by: FA
Checked by: NMC

CFA Training College, Fiskville
Preliminary Site Assessment

Table H8 - Tree Core Results

Location_Code	Field_ID	Area	Sampled_Date_Time	SDG	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichloroethane	1,2-Dichloropropane	1,3-Dichloropropane	2,2-Dichloropropane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorinated Hydrocarbons	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	cis-1,4-Dichloro-2-butene	Dibromomethane	Dichlorodifluoromethane	Hexachlorobutadiene	Iodomethane	Other Chlorinated Hydrocarbons (IWRG)	Pentachloroethane	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	trans-1,4-Dichloro-2-butene	Trichlorofluoromethane	Vinyl chloride
					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
LOR					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.5	0.5		0.5	5	0.5	5	0.5	0.5	0.5	0.5	5	0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5	5	5
TC1	TC1/8001	Drum Burial Area	1/03/2012	EM1202311	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<48	<2	<20	<2	<20	<2	<2	<2	<2	<20	<2	<2	<26	<2	<2	<2	<2	<2	<2	<20	<20
TC2	TC2/8002	Drum Burial Area	1/03/2012	EM1202311	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<15	<1.5	<1.5	<36	<1.5	<15	<1.5	<15	<1.5	<1.5	<1.5	<1.5	<15	<1.5	<1.5	<19.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<15	<15
TC3	TC3/8003	Drum Burial Area	1/03/2012	EM1202311	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<12	<1.2	<1.2	<28.8	<1.2	<12	<1.2	<12	<1.2	<1.2	<1.2	<1.2	<12	<1.2	<1.2	<15.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<12	<12
TC7	TC7/8007	Drum Burial Area	1/03/2012	EM1202311	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<48	<2	<20	<2	<20	<2	<2	<2	<2	<20	<2	<2	<26	<2	<2	<2	<2	<2	<2	<20	<20
Statistical Summary																																				
Number of Results					4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<12	<1.2	<1.2	<28.8	<1.2	<12	<1.2	<12	<1.2	<1.2	<1.2	<1.2	<12	<1.2	<1.2	<15.6	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<12	<12
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<48	<2	<20	<2	<20	<2	<2	<2	<2	<20	<2	<2	<26	<2	<2	<2	<2	<2	<2	<20	<20
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	8.4	0.84	0.84	20	0.84	8.4	0.84	8.4	0.84	0.84	0.84	0.84	8.4	0.84	0.84	11	0.84	0.84	0.84	0.84	0.84	0.84	8.4	8.4
Median Concentration					0.875	0.875	0.875	0.875	0.875	0.875	0.875	0.875	8.75	0.875	0.875	21	0.875	8.75	0.875	8.75	0.875	0.875	0.875	0.875	8.75	0.875	0.875	11.38	0.875	0.875	0.875	0.875	0.875	0.875	8.75	8.75
Standard Deviation					0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	0.2	0.2	4.7	0.2	2	0.2	2	0.2	0.2	0.2	0.2	2	0.2	0.2	2.6	0.2	0.2	0.2	0.2	0.2	0.2	2	2
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Table H9 - Soil Results
Relative Percentage Difference

			EM1201711 A8HA5\2001 15/02/2012	EM1201711 A8HA5\2801 15/02/2012	RPD	EM1201711 A8HA5\2001 15/02/2012	Interlab_D A8HA5/2901 15/02/2012	RPD
Method_Type	**ChemName**	**Units**						
Moisture Content	Moisture	%	18.9	29	42	18.9	25	28
Organic Matter	Total Organic Carbon	mg/kg	**27000**	**14000**	**63**	27000	29000	7
Perchlorate in Soils and Sediments by LC/MS	Perchlorate	mg/kg	<0.01	<0.01	0	<0.01	<0.01	0
Perfluorooctyl Acids and Sulfonates by LC/MS/MS	6:2 Fluorotelomer Sulfonate (6:2 FtS)	mg/kg	<0.005	<0.005	0	<0.005		
	Perfluorooctanoate	mg/kg	<0.0005	0.0007	33	<0.0005		
	PFOS	mg/kg	**0.0012**	**0.0316**	**185**	0.0012		
Pesticides by GCMS	a-BHC	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Aldrin	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Azinphos-methyl	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	b-BHC	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Bromophos-ethyl	mg/kg	<0.1	<0.05	0	<0.1		
	Carbophenothion	mg/kg	<0.1	<0.05	0	<0.1		
	cis-Chlordane	mg/kg	<0.1	<0.05	0	<0.1		
	trans-Chlordane	mg/kg	<0.1	<0.05	0	<0.1		
	Chlorfenvinphos	mg/kg	<0.1	<0.05	0	<0.1		
	Chlorpyriphos	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	Chlorpyriphos-methyl	mg/kg	<0.1	<0.05	0	<0.1		
	d-BHC	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	DDD	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	DDE	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	DDT	mg/kg	<0.4	<0.2	0	<0.4	<0.05	0
	Demeton-s-methyl	mg/kg	<0.1	<0.05	0	<0.1		
	Diazinon	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	Dichlorvos	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	Dieldrin	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Dimethoate	mg/kg	<0.1	<0.05	0	<0.1		
	Endosulfan I	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Endosulfan II	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Endosulfan sulphate	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Endrin	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Endrin aldehyde	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Endrin ketone	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Ethion	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	Fenamiphos	mg/kg	<0.1	<0.05	0	<0.1		
	Fenthion	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
	g-BHC	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Heptachlor	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Heptachlor epoxide	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Hexachlorobenzene	mg/kg	<0.1	<0.05	0	<0.1	<0.05	0
	Malathion	mg/kg	<0.1	<0.05	0	<0.1		
	Methoxychlor	mg/kg	<0.4	<0.2	0	<0.4	<0.05	0
	Parathion-methyl	mg/kg	<0.4	<0.2	0	<0.4	<0.2	0
	Monocrotophos	mg/kg	<0.4	<0.2	0	<0.4		
	Parathion	mg/kg	<0.4	<0.2	0	<0.4		
	Pirimphos-ethyl	mg/kg	<0.1	<0.05	0	<0.1		
	Prothiofos	mg/kg	<0.1	<0.05	0	<0.1	<0.2	0
pH (1:5)	pH (Lab)	pH	6.5	6.5	0	6.5		
Polychlorinated Biphenyls (PCB)	PCB (Sum of Total-Lab Reported)	mg/kg	<0.2	<0.1	0	<0.2	<0.1	0

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Table H9 - Soil Results
Relative Percentage Difference

			EM1201711 A8HA5\2001 15/02/2012	EM1201711 A8HA5\2801 15/02/2012	RPD	EM1201711 A8HA5\2001 15/02/2012	Interlab_D A8HA5/2901 15/02/2012	RPD
Semivolatile Organic Compounds	1,3,5-Trinitrobenzene	mg/kg	<0.5	<0.5	0	<0.5		
	2,4,5-Trichlorophenol	mg/kg	<0.5	<0.5	0	<0.5	<1	0
	2,4,6-Trichlorophenol	mg/kg	<0.5	<0.5	0	<0.5	<1	0
	2,4-Dinitrotoluene	mg/kg						
	2,4-Dinitrotoluene	mg/kg	<1	<1	0	<1	<0.5	0
	2,4-Dichlorophenol	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2,6-Dinitrotoluene	mg/kg						
	2,6-Dinitrotoluene	mg/kg	<1	<1	0	<1	<0.5	0
	2,6-Dichlorophenol	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2-Chlorophenol	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	1,2,4-Trichlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	4-Chloro-3-methylphenol	mg/kg	<0.5	<0.5	0	<0.5	<1	0
	1,2-Dichlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Pentachlorophenol	mg/kg	<1	<1	0	<1	<1	0
	1,3-Dichlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,4-Dichlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Hexachlorobutadiene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Hexachloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Pronamide	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	1-Naphthylamine	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2-(Acetylamino) fluorene	mg/kg	<0.5	<0.5	0	<0.5		
	2,4-Dimethylphenol	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2-Chloronaphthalene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2-Methylnaphthalene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	2-Methylphenol	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	2-Nitroaniline	mg/kg						
	2-Nitroaniline	mg/kg	<1	<1	0	<1	<0.5	0
	2-Nitrophenol	mg/kg	<0.5	<0.5	0	<0.5	<1	0
	2-Picoline	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	3- & 4- Methylphenol	mg/kg	**4.6**	**<1**	**129**	**4.6**	**<0.4**	**168**
	3,3-Dichlorobenzidine	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	3-Methylcholanthrene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	3-Nitroaniline	mg/kg						
	3-Nitroaniline	mg/kg	<1	<1	0	<1		
	4-(Dimethylamino) azobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	4-Aminobiphenyl	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	4-Bromophenyl phenyl ether	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	4-Chloroaniline	mg/kg	<0.5	<0.5	0	<0.5		
	4-Chlorophenyl phenyl ether	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	4-Nitroaniline	mg/kg	<0.5	<0.5	0	<0.5		
	4-Nitroquinoline-n-oxide	mg/kg	<0.5	<0.5	0	<0.5		
	2-methyl-5-nitroaniline	mg/kg	<0.5	<0.5	0	<0.5		
	7,12-Dimethylbenz(a)anthracene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	a-BHC	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Acenaphthene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Acenaphthylene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Acetophenone	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Aldrin	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Aniline	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Anthracene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Azobenzene	mg/kg	<1	<1	0	<1		
	b-BHC	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Benz(a)anthracene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(a)pyrene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Benzo(b)&(k)fluoranthene	mg/kg	<1	<1	0	<1		
	Benzo(g,h,i)perylene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Bis(2-chloroethoxy) methane	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Bis(2-chloroisopropyl) ether	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Bis(2-ethylhexyl) phthalate	mg/kg						
	Bis(2-ethylhexyl) phthalate	mg/kg	<5	<5	0	<5	<0.5	0
	Butylbenzyl phthalate	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Carbazole	mg/kg	<0.5	<0.5	0	<0.5		
	Chlorfenvinphos	mg/kg	<0.5	<0.5	0	<0.5		
	Chlorobenzilate	mg/kg	<0.5	<0.5	0	<0.5		
	Chlorpyriphos	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	Chlorpyriphos-methyl	mg/kg	<0.5	<0.5	0	<0.5		
	Chrysene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	d-BHC	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	DDD	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	DDE	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	DDT	mg/kg						
	DDT	mg/kg	<1	<1	0	<1	<0.05	0
	Diazinon	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	Dibenz(a,h)anthracene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Dibenzofuran	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Dichlorvos	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	Dieldrin	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Diethyl phthalate	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Dimethoate	mg/kg	<0.5	<0.5	0	<0.5		
	Dimethyl phthalate	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Di-n-butyl phthalate	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Di-n-octyl phthalate	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Endosulfan I	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Endosulfan II	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Endosulfan sulphate	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Endrin	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Ethion	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	Fenthion	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
	Fluoranthene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Fluorene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	g-BHC	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Heptachlor	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Heptachlor epoxide	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Hexachlorobenzene	mg/kg						
	Hexachlorobenzene	mg/kg	<1	<1	0	<1	<0.05	0
	Hexachlorocyclopentadiene	mg/kg						
	Hexachlorocyclopentadiene	mg/kg	<2.5	<2.5	0	<2.5	<0.5	0
	Hexachloropropene	mg/kg	<0.5	<0.5	0	<0.5		
	Indeno(1,2,3-c,d)pyrene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	Isophorone	mg/kg	<0.5	<0.5	0	<0.5		
	Malathion	mg/kg	<0.5	<0.5	0	<0.5		

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Table H9 - Soil Results
Relative Percentage Difference

		EM1201711 A8HA5\2001 15/02/2012	EM1201711 A8HA5\2801 15/02/2012	RPD	EM1201711 A8HA5\2001 15/02/2012	Interlab_D A8HA5/2901 15/02/2012	RPD
Methapyrilene	mg/kg	<0.5	<0.5	0	<0.5		
Naphthalene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Nitrobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
n-Nitrosodiethylamine	mg/kg	<0.5	<0.5	0	<0.5		
N-Nitrosodi-n-butylamine	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
N-Nitrosodi-n-propylamine	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
n-Nitrosodiphenylamine & Diphenylamine	mg/kg						
n-Nitrosodiphenylamine & Diphenylamine	mg/kg	<1	<1	0	<1		
n-Nitrosomethylethylamine	mg/kg	<0.5	<0.5	0	<0.5		
n-Nitrosomorpholine	mg/kg	<0.5	<0.5	0	<0.5		
N-Nitrosopiperidine	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
n-Nitrosopyrrolidine	mg/kg						
n-Nitrosopyrrolidine	mg/kg	<1	<1	0	<1		
Phenanthrene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Pentachlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Pentachloronitrobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Phenacetin	mg/kg	<0.5	<0.5	0	<0.5		
Pyrene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Phenol	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
Pirimphos-ethyl	mg/kg	<0.5	<0.5	0	<0.5		
Prothiofos	mg/kg	<0.5	<0.5	0	<0.5	<0.2	0
PAH (Sum of Common 16 PAHs - Lab Reported)	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0

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Table H9 - Soil Results
Relative Percentage Difference

			EM1201711 A8HA5\2001 15/02/2012	EM1201711 A8HA5\2801 15/02/2012	RPD	EM1201711 A8HA5\2001 15/02/2012	Interlab_D A8HA5/2901 15/02/2012	RPD
Total Mercury by FIMS	Mercury	mg/kg	<0.1	<0.1	0	<0.1	<0.1	0
Total Mercury by FIMS (Low Level)	Mercury	mg/kg						
Total Metals by ICP-AES	Arsenic	mg/kg	6	<5	18	6	4	40
	Cadmium	mg/kg	<1	<1	0	<1	<0.4	0
	Chromium	mg/kg	58	43	30	**58**	**32**	**58**
	Copper	mg/kg	7	6	15	7	6.3	11
	Lead	mg/kg	19	18	5	19	12	45
	Nickel	mg/kg	12	8	40	12	9.7	21
	Zinc	mg/kg	**14**	**7**	**67**	14	14	0
TPH - Semivolatile Fraction	TPH C10 - C14 Fraction	mg/kg	<50	<50	0	<50	<20	0
	TPH C10 - C14 Fraction	mg/kg						
	TPH C15 - C28 Fraction	mg/kg						
	TPH C15 - C28 Fraction	mg/kg	140	<100	33	**140**	**<50**	**95**
	TPH C29-C36 Fraction	mg/kg						
	TPH C29-C36 Fraction	mg/kg	<100	<100	0	<100	<50	0
	TPH+C10 - C36 (Sum of total) (Lab Reported)	mg/kg	**140**	**<50**	**95**	**140**	**<50**	**95**
	TPH+C10 - C36 (Sum of total) (Lab Reported)	mg/kg						
	TPH+C10 - C40 (Sum of total) (Lab Reported)	mg/kg	**200**	**<50**	**120**	200		
	>C10 - C16 Fraction	mg/kg	<50	<50	0	<50	<50	0
	>C16 - C34 Fraction	mg/kg	**200**	**<100**	**67**	**200**	**<100**	**67**
	>C34 - C40 Fraction	mg/kg	<100	<100	0	<100	<100	0
	TPH C 6 - C 9 Fraction	mg/kg	<10	<10	0	<10	<20	0
	C6 - C10 Fraction	mg/kg	<10	<10	0	<10	<20	0
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,1,2,2-Tetrachloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,1,1-Trichloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,1,2-Trichloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2,3-Trichloropropane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2-Dibromo-3-chloropropane	mg/kg	<0.5	<0.5	0	<0.5		
	1,2-Dibromoethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,1-Dichloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2-Dichloroethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,1-Dichloroethene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2,3-Trichlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.5	0
	cis-1,2-Dichloroethene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	trans-1,2-dichloroethene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2-Dichloropropane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2,4-Trichlorobenzene	mg/kg						
	1,3-Dichloropropane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2,4-trimethylbenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	2,2-Dichloropropane	mg/kg	<0.5	<0.5	0	<0.5		
	1,1-Dichloropropene	mg/kg	<0.5	<0.5	0	<0.5		
	cis-1,3-Dichloropropene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	trans-1,3-dichloropropene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,2-Dichlorobenzene	mg/kg						
	cis-1,4-Dichloro-2-butene	mg/kg	<0.5	<0.5	0	<0.5		
	trans-1,4-Dichloro-2-butene	mg/kg	<0.5	<0.5	0	<0.5		
	1,3,5-Trimethylbenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	1,3-Dichlorobenzene	mg/kg						
	Bromodichloromethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Bromoform	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Bromomethane	mg/kg	<5	<5	0	<5	<0.05	0
	1,4-Dichlorobenzene	mg/kg						
	Carbon disulfide	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Carbon tetrachloride	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Chlorodibromomethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Chloroethane	mg/kg	<5	<5	0	<5	<0.05	0
	Chloroform	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Chloromethane	mg/kg	<5	<5	0	<5	<0.05	0
	Dibromomethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Dichlorodifluoromethane	mg/kg	<5	<5	0	<5	<0.05	0
	Hexachlorobutadiene	mg/kg						
	Iodomethane	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Pentachloroethane	mg/kg	<0.5	<0.5	0	<0.5		
	Trichloroethene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Tetrachloroethene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Trichlorofluoromethane	mg/kg	<5	<5	0	<5	<0.05	0
	Vinyl chloride	mg/kg	<5	<5	0	<5	<0.05	0
	Methyl Ethyl Ketone	mg/kg	<5	<5	0	<5	<0.05	0
	2-Chlorotoluene	mg/kg	<0.5	<0.5	0	<0.5		
	2-Hexanone	mg/kg	<5	<5	0	<5		
	4-Chlorotoluene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	4-Methyl-2-pentanone	mg/kg	<5	<5	0	<5	<0.05	0
	Benzene	mg/kg	<0.2	<0.2	0	<0.2	<0.05	0
	Bromobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Chlorobenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Ethylbenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Isopropylbenzene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Naphthalene	mg/kg						
	n-Butylbenzene	mg/kg	<0.5	<0.5	0	<0.5		
	n-Propylbenzene	mg/kg	<0.5	<0.5	0	<0.5		
	p-Isopropyltoluene	mg/kg	<0.5	<0.5	0	<0.5		
	sec-Butylbenzene	mg/kg	<0.5	<0.5	0	<0.5		
	Styrene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	tert-Butylbenzene	mg/kg	<0.5	<0.5	0	<0.5		
	Toluene	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0
	Vinyl acetate	mg/kg	<5	<5	0	<5		
	Xylenes (m & p)	mg/kg	<0.5	<0.5	0	<0.5	<0.1	0
	Xylene (o)	mg/kg	<0.5	<0.5	0	<0.5	<0.05	0

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Prepared by:NC
Checked by:LY

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Table H10 - Sediment Results
Relative Percentage Difference

Method_Type	ChemName	Units	LOR						
			SDG	EM1201358	EM1201358		EM1201358	EM1201358	
			Field_ID	SD10 - 10110/8010	Dup2 - 10110/8811	RPD	SD10 - 10110/8010	Dup2 - 10110/8811	RPD
			Sampled_Date-Time	8/02/2012	8/02/2012		8/02/2012	8/02/2012	
Moisture Content	Moisture	%	1	9.2	8.6	7	39.8	42.5	7
Organochlorine Pesticides (Ultra-trace)	a-BHC	mg/kg	0.0005	<0.00062	<0.00062	0			
	Aldrin	mg/kg	0.0005	<0.00062	<0.00062	0			
	b-BHC	mg/kg	0.0005	<0.00062	<0.00062	0			
	Chlordane (Sum of total)	mg/kg	0.00025	<0.00062	<0.00062	0			
	cis-Chlordane	mg/kg	0.00025	<0.00062	<0.00062	0			
	trans-Chlordane	mg/kg	0.00025	<0.00062	<0.00062	0			
	d-BHC	mg/kg	0.0005	<0.00062	<0.00062	0			
	DDD	mg/kg	0.0005	<0.00062	<0.00062	0			
	DDE	mg/kg	0.0005	<0.00062	<0.00062	0			
	DDT	mg/kg	0.0005	<0.00062	<0.00062	0			
	DDT+DDE+DDD (Sum of total)	mg/kg	0.0005	<0.00062	<0.00062	0			
	Dieldrin	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endosulfan	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endosulfan I	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endosulfan II	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endosulfan sulphate	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endrin	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endrin aldehyde	mg/kg	0.0005	<0.00062	<0.00062	0			
	Endrin ketone	mg/kg	0.0005	<0.00062	<0.00062	0			
	g-BHC	mg/kg	0.00025	<0.00062	<0.00062	0			
	Heptachlor	mg/kg	0.0005	<0.00062	<0.00062	0			
	Heptachlor epoxide	mg/kg	0.0005	<0.00062	<0.00062	0			
	Hexachlorobenzene	mg/kg	0.0005	<0.00062	<0.00062	0			
	Methoxychlor	mg/kg	0.0005	<0.00062	<0.00062	0			
	Oxychlordane	mg/kg	0.0005	<0.00062	<0.00062	0			
Organophosphorus Pesticides (Ultra-trace)	Azinphos-methyl	mg/kg	0.01	<0.25	<0.25	0			
	Bromophos-ethyl	mg/kg	0.01	<0.25	<0.25	0			
	Carbophenothion	mg/kg	0.01	<0.25	<0.25	0			
	Chlorfenvinphos E	mg/kg	0.01	<0.25	<0.25	0			
	Chlorpyriphos	mg/kg	0.01	<0.25	<0.25	0			
	Chlorpyriphos-methyl	mg/kg	0.01	<0.25	<0.25	0			
	cis-Chlorfenvinphos	mg/kg	0.01	<0.25	<0.25	0			
	Demeton-s-methyl	mg/kg	0.01	<0.25	<0.25	0			
	Diazinon	mg/kg	0.01	<0.25	<0.25	0			
	Dichlorvos	mg/kg	0.01	<0.25	<0.25	0			
	Dimethoate	mg/kg	0.01	<0.25	<0.25	0			
	Ethion	mg/kg	0.01	<0.25	<0.25	0			
	Fenamiphos	mg/kg	0.01	<0.25	<0.25	0			
	Fenthion	mg/kg	0.01	<0.25	<0.25	0			
	Malathion	mg/kg	0.01	<0.25	<0.25	0			
	Parathion-methyl	mg/kg	0.01	<0.25	<0.25	0			
	Monocrotophos	mg/kg	0.01	<0.25	<0.25	0			
	Parathion	mg/kg	0.01	<0.25	<0.25	0			
	Pirimphos-ethyl	mg/kg	0.01	<0.25	<0.25	0			
	Prothiofos	mg/kg	0.01	<0.25	<0.25	0			
PCBs (Ultra-trace)	Aroclor 1016	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1232	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1242	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1248	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1254	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1260	mg/kg	0.005	<0.0312	<0.0312	0			
	Aroclor 1221	mg/kg	0.005	<0.0312	<0.0312	0			
	PCB (Sum of Total-Lab Reported)	mg/kg	0.005	<0.0312	<0.0312	0			
PCDDs and PCDFs by GC/HRMS	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,7,8-PeCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,4,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,6,7,8-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,7,8,9-HxCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25						
	OCDD	pg/g	5						
	OCDD	pg/g	5						
	OCDD	pg/g	5						
	OCDD	pg/g	5						

Prepared by: NC
Checked by: LY

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Preliminary Site Assessment

Table H10 - Sediment Results
Relative Percentage Difference

		SDG	EM1201358	EM1201358		EM1201358	EM1201358	
		Field_ID	SD10 - 10110/8010	Dup2 - 10110/8811	**RPD**	SD10 - 10110/8010	Dup2 - 10110/8811	**RPD**
		Sampled_Date-Time	8/02/2012	8/02/2012		8/02/2012	8/02/2012	
OCDD	pg/g	5						
OCDD	pg/g	5						
OCDD	pg/g	5						
OCDD	pg/g	5						
OCDD	pg/g	5						
OCDD	pg/g	5						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
2,3,7,8-TCDF	pg/g	0.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
1,2,3,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
2,3,4,7,8-PeCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
1,2,3,4,7,8-HxCDF	pg/g	1.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
1,2,3,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
2,3,4,6,7,8-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,7,8,9-HxCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,6,7,8-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
1,2,3,4,7,8,9-HpCDF	pg/g	1.25						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						
OCDF	pg/g	2.5						

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Checked by: LY

CFA Training College, Fiskville
Preliminary Site Assessment

Table H10 - Sediment Results
Relative Percentage Difference

				SDG	EM1201358	EM1201358		EM1201358	EM1201358	
				Field_ID	SD10 - 10110/8010	Dup2 - 10110/8811	RPD	SD10 - 10110/8010	Dup2 - 10110/8811	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012		8/02/2012	8/02/2012	
	OCDF	pg/g	2.5							
	OCDF	pg/g	2.5							
	OCDF	pg/g	2.5							
	Total TEQ	mg/kg	0							
	Total TEQ	mg/kg	0							
	Total TEQ	mg/kg	0							
	Total TEQ	mg/kg	0							
	Total TEQ	mg/kg	0							
	Total TEQ	mg/kg	0							
Perchlorate in Soils and Sediments by LC/MS	Perchlorate	mg/kg	0.01		<0.01	<0.01	0			
Perfluorooctyl Acids and Sulfonates by LC/MS/MS	6:2 Fluorotelomer Sulfonate (6:2 FtS)	mg/kg	0.005		0.882	0.624	34			
	Perfluorooctanoate	mg/kg	0.0005		1.24	0.866	36			
	PFOS	mg/kg	0.0005		66	72.2	9			
Semivolatile Organic Compounds	1,3,5-Trinitrobenzene	mg/kg	0.5		<7.5	<7.5	0			
	2,4,5-Trichlorophenol	mg/kg	0.5		<7.5	<7.5	0			
	2,4,6-Trichlorophenol	mg/kg	0.5		<7.5	<7.5	0			
	2,4-Dinitrotoluene	mg/kg	1		<15	<15	0			
	2,4-Dichlorophenol	mg/kg	0.5		<7.5	<7.5	0			
	2,6-Dinitrotoluene	mg/kg	1		<15	<15	0			
	2,6-Dichlorophenol	mg/kg	0.5		<7.5	<7.5	0			
	2-Chlorophenol	mg/kg	0.5		<7.5	<7.5	0			
	1,2,4-Trichlorobenzene	mg/kg	0.5		<7.5	<7.5	0			
	4-Chloro-3-methylphenol	mg/kg	0.5		<7.5	<7.5	0			
	1,2-Dichlorobenzene	mg/kg	0.5		<7.5	<7.5	0			
	Pentachlorophenol	mg/kg	1		<15	<15	0			
	1,3-Dichlorobenzene	mg/kg	0.5		<7.5	<7.5	0			
	1,4-Dichlorobenzene	mg/kg	0.5		<7.5	<7.5	0			
	Hexachlorobutadiene	mg/kg	0.5		<7.5	<7.5	0			
	Hexachloroethane	mg/kg	0.5		<7.5	<7.5	0			
	Pronamide	mg/kg	0.5		<7.5	<7.5	0			
	1-Naphthylamine	mg/kg	0.5		<7.5	<7.5	0			
	2-(Acetylamino) fluorene	mg/kg	0.5		<7.5	<7.5	0			
	2,4-Dimethylphenol	mg/kg	0.5		<7.5	<7.5	0			
	2-Chloronaphthalene	mg/kg	0.5		<7.5	<7.5	0			
	2-Methylnaphthalene	mg/kg	0.5		<7.5	<7.5	0			
	2-Methylphenol	mg/kg	0.5		<7.5	<7.5	0			
	2-Nitroaniline	mg/kg	1		<15	<15	0			
	2-Nitrophenol	mg/kg	0.5		<7.5	<7.5	0			
	2-Picoline	mg/kg	0.5		<7.5	<7.5	0			
	3- & 4- Methylphenol	mg/kg	0.5		<15	<15	0			
	3,3-Dichlorobenzidine	mg/kg	0.5		<7.5	<7.5	0			
	3-Methylcholanthrene	mg/kg	0.5		<7.5	<7.5	0			
	3-Nitroaniline	mg/kg	1		<15	<15	0			
	4-(Dimethylamino) azobenzene	mg/kg	0.5		<7.5	<7.5	0			
	4-Aminobiphenyl	mg/kg	0.5		<7.5	<7.5	0			
	4-Bromophenyl phenyl ether	mg/kg	0.5		<7.5	<7.5	0			
	4-Chloroaniline	mg/kg	0.5		<7.5	<7.5	0			
	4-Chlorophenyl phenyl ether	mg/kg	0.5		<7.5	<7.5	0			
	4-Nitroaniline	mg/kg	0.5		<7.5	<7.5	0			
	4-Nitroquinoline-n-oxide	mg/kg	0.5		<7.5	<7.5	0			
	2-methyl-5-nitroaniline	mg/kg	0.5		<7.5	<7.5	0			
	7,12-Dimethylbenz(a)anthracene	mg/kg	0.5		<7.5	<7.5	0			
	a-BHC	mg/kg	0.5		<7.5	<7.5	0			
	Acenaphthene	mg/kg	0.5		<7.5	<7.5	0			
	Acenaphthylene	mg/kg	0.5		<7.5	<7.5	0			
	Acetophenone	mg/kg	0.5		<7.5	<7.5	0			
	Aldrin	mg/kg	0.5		<7.5	<7.5	0			
	Aniline	mg/kg	0.5		<7.5	<7.5	0			
	Anthracene	mg/kg	0.5		<7.5	<7.5	0			
	Azobenzene	mg/kg	1		<15	<15	0			
	b-BHC	mg/kg	0.5		<7.5	<7.5	0			
	Benz(a)anthracene	mg/kg	0.5		<7.5	<7.5	0			
	Benzo(a)pyrene	mg/kg	0.5		<7.5	<7.5	0			
	Benzo(b)&(k)fluoranthene	mg/kg	1		<15	<15	0			
	Benzo(g,h,i)perylene	mg/kg	0.5		<7.5	<7.5	0			
	Bis(2-chloroethoxy) methane	mg/kg	0.5		<7.5	<7.5	0			
	Bis(2-chloroisopropyl) ether	mg/kg	0.5		<7.5	<7.5	0			
	Bis(2-ethylhexyl) phthalate	mg/kg	5		<75	<75	0			
	Butylbenzyl phthalate	mg/kg	0.5		<7.5	<7.5	0			
	Carbazole	mg/kg	0.5		<7.5	<7.5	0			
	Chlorfenvinphos	mg/kg	0.5		<7.5	<7.5	0			
	Chlorobenzilate	mg/kg	0.5		<7.5	<7.5	0			
	Chlorpyriphos	mg/kg	0.5		<7.5	<7.5	0			
	Chlorpyriphos-methyl	mg/kg	0.5		<7.5	<7.5	0			
	Chrysene	mg/kg	0.5		<7.5	<7.5	0			
	d-BHC	mg/kg	0.5		<7.5	<7.5	0			
	DDD	mg/kg	0.5		<7.5	<7.5	0			
	DDE	mg/kg	0.5		<7.5	<7.5	0			
	DDT	mg/kg	1		<15	<15	0			
	Diazinon	mg/kg	0.5		<7.5	<7.5	0			
	Dibenz(a,h)anthracene	mg/kg	0.5		<7.5	<7.5	0			
	Dibenzofuran	mg/kg	0.5		<7.5	<7.5	0			
	Dichlorvos	mg/kg	0.5		<7.5	<7.5	0			
	Dieldrin	mg/kg	0.5		<7.5	<7.5	0			
	Diethyl phthalate	mg/kg	0.5		<7.5	<7.5	0			
	Dimethoate	mg/kg	0.5		<7.5	<7.5	0			
	Dimethyl phthalate	mg/kg	0.5		<7.5	<7.5	0			
	Di-n-butyl phthalate	mg/kg	0.5		<7.5	<7.5	0			
	Di-n-octyl phthalate	mg/kg	0.5		<7.5	<7.5	0			
	Endosulfan I	mg/kg	0.5		<7.5	<7.5	0			
	Endosulfan II	mg/kg	0.5		<7.5	<7.5	0			
	Endosulfan sulphate	mg/kg	0.5		<7.5	<7.5	0			
	Endrin	mg/kg	0.5		<7.5	<7.5	0			
	Ethion	mg/kg	0.5		<7.5	<7.5	0			
	Fenthion	mg/kg	0.5		<7.5	<7.5	0			
	Fluoranthene	mg/kg	0.5		<7.5	<7.5	0			
	Fluorene	mg/kg	0.5		<7.5	<7.5	0			
	g-BHC	mg/kg	0.5		<7.5	<7.5	0			
	Heptachlor	mg/kg	0.5		<7.5	<7.5	0			
	Heptachlor epoxide	mg/kg	0.5		<7.5	<7.5	0			
	Hexachlorobenzene	mg/kg	1		<15	<15	0			
	Hexachlorocyclopentadiene	mg/kg	2.5		<37.5	<37.5	0			
	Hexachloropropene	mg/kg	0.5		<7.5	<7.5	0			
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5		<7.5	<7.5	0			
	Isophorone	mg/kg	0.5		<7.5	<7.5	0			
	Malathion	mg/kg	0.5		<7.5	<7.5	0			
	Methapyrilene	mg/kg	0.5		<7.5	<7.5	0			
	Naphthalene	mg/kg	0.5		<7.5	<7.5	0			
	Nitrobenzene	mg/kg	0.5		<7.5	<7.5	0			
	n-Nitrosodiethylamine	mg/kg	0.5		<7.5	<7.5	0			

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Preliminary Site Assessment

Table H10 - Sediment Results
Relative Percentage Difference

				SDG	EM1201358	EM1201358		EM1201358	EM1201358	
				Field_ID	SD10 - 10110/8010	Dup2 - 10110/8811	RPD	SD10 - 10110/8010	Dup2 - 10110/8811	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012		8/02/2012	8/02/2012	
	N-Nitrosodi-n-butylamine	mg/kg	0.5		<7.5	<7.5	0			
	N-Nitrosodi-n-propylamine	mg/kg	0.5		<7.5	<7.5	0			
	n-Nitrosodiphenylamine & Diphenylamine	mg/kg	1		<15	<15	0			
	n-Nitrosomethylethylamine	mg/kg	0.5		<7.5	<7.5	0			
	n-Nitrosomorpholine	mg/kg	0.5		<7.5	<7.5	0			
	N-Nitrosopiperidine	mg/kg	0.5		<7.5	<7.5	0			
	n-Nitrosopyrrolidine	mg/kg	1		<15	<15	0			
	Phenanthrene	mg/kg	0.5		<7.5	<7.5	0			
	Pentachlorobenzene	mg/kg	0.5		<7.5	<7.5	0			
	Pentachloronitrobenzene	mg/kg	0.5		<7.5	<7.5	0			
	Phenacetin	mg/kg	0.5		<7.5	<7.5	0			
	Pyrene	mg/kg	0.5		10.2	10.1	1			
	Phenol	mg/kg	0.5		<7.5	<7.5	0			
	Pirimphos-ethyl	mg/kg	0.5		<7.5	<7.5	0			
	Prothiofos	mg/kg	0.5		<7.5	<7.5	0			
	PAH (Sum of Common 16 PAHs - Lab Reported)	mg/kg	0.5		10.2	10.1	1			
Total Mercury by FIMS (Low Level)	Mercury	mg/kg	0.01		<0.01	<0.01	0			
Total Metals in Sediments by ICPMS	Arsenic	mg/kg	1		**1.35**	**6.27**	**129**			
	Cadmium	mg/kg	0.1		0.2	0.2	0			
	Chromium	mg/kg	1		22.1	33.5	41			
	Copper	mg/kg	1		12.6	12	5			
	Lead	mg/kg	1		81.7	96.6	17			
	Nickel	mg/kg	1		9.7	13.7	34			
	Zinc	mg/kg	1		136	120	13			
Total Organic Carbon	Total Organic Carbon	mg/kg	200		19500	21200	8			
TPH - Semivolatile Fraction	TPH C10 - C14 Fraction	mg/kg	3		214	246	14			
	TPH C15 - C28 Fraction	mg/kg	3		1860	2090	12			
	TPH C29-C36 Fraction	mg/kg	5		450	396	13			
	TPH+C10 - C36 (Sum of total) (Lab Reported)	mg/kg	3		2520	2730	8			
TPH Volatiles/BTEX	Benzene	mg/kg	0.2					<0.2	<0.2	0
	Ethylbenzene	mg/kg	0.5					<0.5	<0.5	0
	Naphthalene	mg/kg	1					<1	<1	0
	Toluene	mg/kg	0.5					<0.5	<0.5	0
	TPH C 6 - C 9 Fraction	mg/kg	10					71	88	21
	C6 - C10 Fraction	mg/kg	10					96	118	21
	Xylenes (m & p)	mg/kg	0.5					1.4	1.9	30
	Xylene (o)	mg/kg	0.5					<0.5	<0.5	0
	Xylenes (Sum of total)	mg/kg	0.5					1.4	1.9	30
	Total BTEX	mg/kg	0.2					1.4	1.9	30
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,1,2,2-Tetrachloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,1,1-Trichloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,1,2-Trichloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,2,3-Trichloropropane	mg/kg	0.5					<0.5	<0.5	0
	1,2-Dibromo-3-chloropropane	mg/kg	0.5					<0.5	<0.5	0
	1,2-Dibromoethane	mg/kg	0.5					<0.5	<0.5	0
	1,1-Dichloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,2-Dichloroethane	mg/kg	0.5					<0.5	<0.5	0
	1,1-Dichloroethene	mg/kg	0.5					<0.5	<0.5	0
	1,2,3-Trichlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	cis-1,2-Dichloroethene	mg/kg	0.5					<0.5	<0.5	0
	trans-1,2-dichloroethene	mg/kg	0.5					<0.5	<0.5	0
	1,2-Dichloropropane	mg/kg	0.5					<0.5	<0.5	0
	1,2,4-Trichlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	1,3-Dichloropropane	mg/kg	0.5					<0.5	<0.5	0
	1,2,4-trimethylbenzene	mg/kg	0.5					3	3.7	21
	2,2-Dichloropropane	mg/kg	0.5					<0.5	<0.5	0
	1,1-Dichloropropene	mg/kg	0.5					<0.5	<0.5	0
	cis-1,3-Dichloropropene	mg/kg	0.5					<0.5	<0.5	0
	trans-1,3-dichloropropene	mg/kg	0.5					<0.5	<0.5	0
	1,2-Dichlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	cis-1,4-Dichloro-2-butene	mg/kg	0.5					<0.5	<0.5	0
	trans-1,4-Dichloro-2-butene	mg/kg	0.5					<0.5	<0.5	0
	1,3,5-Trimethylbenzene	mg/kg	0.5					1.3	1.6	21
	1,3-Dichlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	Bromodichloromethane	mg/kg	0.5					<0.5	<0.5	0
	Bromoform	mg/kg	0.5					<0.5	<0.5	0
	Bromomethane	mg/kg	5					<5	<5	0
	1,4-Dichlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	Carbon disulfide	mg/kg	0.5					<0.5	<0.5	0
	Carbon tetrachloride	mg/kg	0.5					<0.5	<0.5	0
	Chlorodibromomethane	mg/kg	0.5					<0.5	<0.5	0
	Chloroethane	mg/kg	5					<5	<5	0
	Chloroform	mg/kg	0.5					<0.5	<0.5	0
	Chloromethane	mg/kg	5					<5	<5	0
	Dibromomethane	mg/kg	0.5					<0.5	<0.5	0
	Dichlorodifluoromethane	mg/kg	5					<5	<5	0
	Hexachlorobutadiene	mg/kg	0.5					<0.5	<0.5	0
	Iodomethane	mg/kg	0.5					<0.5	<0.5	0
	Pentachloroethane	mg/kg	0.5					<0.5	<0.5	0
	Trichloroethene	mg/kg	0.5					<0.5	<0.5	0
	Tetrachloroethene	mg/kg	0.5					<0.5	<0.5	0
	Trichlorofluoromethane	mg/kg	5					<5	<5	0
	Vinyl chloride	mg/kg	5					<5	<5	0
	Methyl Ethyl Ketone	mg/kg	5					<5	<5	0
	2-Chlorotoluene	mg/kg	0.5					<0.5	<0.5	0
	2-Hexanone	mg/kg	5					<5	<5	0
	4-Chlorotoluene	mg/kg	0.5					<0.5	<0.5	0
	4-Methyl-2-pentanone	mg/kg	5					<5	<5	0
	Bromobenzene	mg/kg	0.5					<0.5	<0.5	0
	Chlorobenzene	mg/kg	0.5					<0.5	<0.5	0
	Isopropylbenzene	mg/kg	0.5					<0.5	<0.5	0
	Naphthalene	mg/kg	5					<5	<5	0
	n-Butylbenzene	mg/kg	0.5					<0.5	<0.5	0
	n-Propylbenzene	mg/kg	0.5					<0.5	<0.5	0
	p-Isopropyltoluene	mg/kg	0.5					<0.5	<0.5	0
	sec-Butylbenzene	mg/kg	0.5					<0.5	<0.5	0
	Styrene	mg/kg	0.5					<0.5	<0.5	0
	tert-Butylbenzene	mg/kg	0.5					<0.5	<0.5	0
	Vinyl acetate	mg/kg	5					<5	<5	0

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

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Table H10 - Sediment Results
Relative Percentage Difference

			SDG	EM1201412	EM1201412	
			Field_ID	SD10-10110/8010	DUP2-10110/8811	**RPD**
			Sampled_Date-Time	8/02/2012	8/02/2012	
Method_Type	**ChemName**	**Units**	**LOR**			
Moisture Content	Moisture	%	1			
Organochlorine Pesticides (Ultra-trace)	a-BHC	mg/kg	0.0005			
	Aldrin	mg/kg	0.0005			
	b-BHC	mg/kg	0.0005			
	Chlordane (Sum of total)	mg/kg	0.00025			
	cis-Chlordane	mg/kg	0.00025			
	trans-Chlordane	mg/kg	0.00025			
	d-BHC	mg/kg	0.0005			
	DDD	mg/kg	0.0005			
	DDE	mg/kg	0.0005			
	DDT	mg/kg	0.0005			
	DDT+DDE+DDD (Sum of total)	mg/kg	0.0005			
	Dieldrin	mg/kg	0.0005			
	Endosulfan	mg/kg	0.0005			
	Endosulfan I	mg/kg	0.0005			
	Endosulfan II	mg/kg	0.0005			
	Endosulfan sulphate	mg/kg	0.0005			
	Endrin	mg/kg	0.0005			
	Endrin aldehyde	mg/kg	0.0005			
	Endrin ketone	mg/kg	0.0005			
	g-BHC	mg/kg	0.00025			
	Heptachlor	mg/kg	0.0005			
	Heptachlor epoxide	mg/kg	0.0005			
	Hexachlorobenzene	mg/kg	0.0005			
	Methoxychlor	mg/kg	0.0005			
	Oxychlordane	mg/kg	0.0005			
Organophosphorus Pesticides (Ultra-trace)	Azinphos-methyl	mg/kg	0.01			
	Bromophos-ethyl	mg/kg	0.01			
	Carbophenothion	mg/kg	0.01			
	Chlorfenvinphos E	mg/kg	0.01			
	Chlorpyriphos	mg/kg	0.01			
	Chlorpyriphos-methyl	mg/kg	0.01			
	cis-Chlorfenvinphos	mg/kg	0.01			
	Demeton-s-methyl	mg/kg	0.01			
	Diazinon	mg/kg	0.01			
	Dichlorvos	mg/kg	0.01			
	Dimethoate	mg/kg	0.01			
	Ethion	mg/kg	0.01			
	Fenamiphos	mg/kg	0.01			
	Fenthion	mg/kg	0.01			
	Malathion	mg/kg	0.01			
	Parathion-methyl	mg/kg	0.01			
	Monocrotophos	mg/kg	0.01			
	Parathion	mg/kg	0.01			
	Pirimphos-ethyl	mg/kg	0.01			
	Prothiofos	mg/kg	0.01			
PCBs (Ultra-trace)	Aroclor 1016	mg/kg	0.005			
	Aroclor 1232	mg/kg	0.005			
	Aroclor 1242	mg/kg	0.005			
	Aroclor 1248	mg/kg	0.005			
	Aroclor 1254	mg/kg	0.005			
	Aroclor 1260	mg/kg	0.005			
	Aroclor 1221	mg/kg	0.005			
	PCB (Sum of Total-Lab Reported)	mg/kg	0.005			
PCDDs and PCDFs by GC/HRMS	1,2,3,7,8-PeCDD	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<0.5	<0.5	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<0.63	<0.62	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<1.25	<1.24	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<1	<1	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<1.25	<1.24	0
	1,2,3,7,8-PeCDD	pg/g	1.25	<2.5	<2.49	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.1	<0.1	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.13	<0.12	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.25	<0.25	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.1	<0.1	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.13	<0.12	0
	1,2,3,4,7,8-HxCDD	pg/g	1.25	<0.25	<0.25	0
	1,2,3,6,7,8-HxCDD	pg/g	1.25	2.8	<2.5	11
	1,2,3,6,7,8-HxCDD	pg/g	1.25	0.1	<0.1	0
	1,2,3,6,7,8-HxCDD	pg/g	1.25	**0.28**	**<0.0E0**	**200**
	1,2,3,6,7,8-HxCDD	pg/g	1.25	**0.28**	**<0.12**	**80**
	1,2,3,6,7,8-HxCDD	pg/g	1.25	0.28	<0.25	11
	1,2,3,6,7,8-HxCDD	pg/g	1.25	2.5	<2.5	0
	1,2,3,6,7,8-HxCDD	pg/g	1.25	0.1	<0.1	0
	1,2,3,6,7,8-HxCDD	pg/g	1.25	**0.28**	**<0.0E0**	**200**
	1,2,3,6,7,8-HxCDD	pg/g	1.25	**0.28**	**<0.12**	**80**
	1,2,3,6,7,8-HxCDD	pg/g	1.25	0.28	<0.25	11
	1,2,3,7,8,9-HxCDD	pg/g	1.25	2.9	<2.5	15
	1,2,3,7,8,9-HxCDD	pg/g	1.25	0.1	<0.1	0
	1,2,3,7,8,9-HxCDD	pg/g	1.25	**0.29**	**<0.0E0**	**200**
	1,2,3,7,8,9-HxCDD	pg/g	1.25	**0.29**	**<0.12**	**83**
	1,2,3,7,8,9-HxCDD	pg/g	1.25	0.29	<0.25	15
	1,2,3,7,8,9-HxCDD	pg/g	1.25	2.5	<2.5	0
	1,2,3,7,8,9-HxCDD	pg/g	1.25	0.1	<0.1	0
	1,2,3,7,8,9-HxCDD	pg/g	1.25	**0.29**	**<0.0E0**	**200**
	1,2,3,7,8,9-HxCDD	pg/g	1.25	**0.29**	**<0.12**	**83**
	1,2,3,7,8,9-HxCDD	pg/g	1.25	0.29	<0.25	15
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**77.6**	**25.2**	**102**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	0.01	0.01	0
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	2.5	2.5	0
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	0.01	0.01	0
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	1,2,3,4,6,7,8-HpCDD	pg/g	1.25	**0.78**	**0.25**	**103**
	OCDD	pg/g	5	**1110**	**325**	**109**
	OCDD	pg/g	5	0.001	0.001	0
	OCDD	pg/g	5	**1.11**	**0.33**	**108**
	OCDD	pg/g	5	**1.11**	**0.33**	**108**

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Checked by: LY

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Preliminary Site Assessment

Table H10 - Sediment Results
Relative Percentage Difference

			SDG	EM1201412	EM1201412	
			Field_ID	SD10-10110/8010	DUP2-10110/8811	RPD
			Sampled_Date-Time	8/02/2012	8/02/2012	
	OCDD	pg/g	5	**1.11**	**0.33**	**108**
	OCDD	pg/g	5	10	10	0
	OCDD	pg/g	5	0.0003	0.0003	0
	OCDD	pg/g	5	**0.33**	**0.1**	**107**
	OCDD	pg/g	5	**0.33**	**0.1**	**107**
	OCDD	pg/g	5	**0.33**	**0.1**	**107**
	2,3,7,8-TCDF	pg/g	0.25	**1**	**<0.5**	**67**
	2,3,7,8-TCDF	pg/g	0.25	0.1	<0.1	0
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.0E0**	**200**
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.02**	**133**
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.05**	**67**
	2,3,7,8-TCDF	pg/g	0.25	0.5	<0.5	0
	2,3,7,8-TCDF	pg/g	0.25	0.1	<0.1	0
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.0E0**	**200**
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.02**	**133**
	2,3,7,8-TCDF	pg/g	0.25	**0.1**	**<0.05**	**67**
	1,2,3,7,8-PeCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.05	<0.05	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.06	<0.06	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.03	<0.03	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.04	<0.04	0
	1,2,3,7,8-PeCDF	pg/g	1.25	<0.08	<0.07	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<2.5	<2.5	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.5	<0.5	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.63	<0.62	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<1.25	<1.24	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<2.5	<2.5	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.3	<0.3	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.38	<0.37	0
	2,3,4,7,8-PeCDF	pg/g	1.25	<0.75	<0.75	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,4,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.5	<0.5	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<1	<1	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.0E0	<0.0E0	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.25	<0.25	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.5	<0.5	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.5	<0.5	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<1	<1	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.0E0	<0.0E0	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.25	<0.25	0
	2,3,7,8-Tetrachlorooxanthrene	pg/g	0.25	<0.5	<0.5	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,6,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<2.5	<2.5	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.1	<0.1	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.13	<0.12	0
	2,3,4,6,7,8-HxCDF	pg/g	1.25	<0.25	<0.25	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.25	<0.25	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.1	<0.1	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.13	<0.12	0
	1,2,3,7,8,9-HxCDF	pg/g	1.25	<0.25	<0.25	0
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**12.8**	**4.6**	**94**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	0.01	0.01	0
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	2.5	2.5	0
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	0.01	0.01	0
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,6,7,8-HpCDF	pg/g	1.25	**0.13**	**0.05**	**89**
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.01	<0.01	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.01	<0.01	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.03	<0.02	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<2.5	<2.5	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.01	<0.01	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.0E0	<0.0E0	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.01	<0.01	0
	1,2,3,4,7,8,9-HpCDF	pg/g	1.25	<0.03	<0.02	0
	OCDF	pg/g	2.5	**16.9**	**<5**	**109**
	OCDF	pg/g	2.5	0.001	<0.001	0
	OCDF	pg/g	2.5	**0.02**	**<0.0E0**	**200**
	OCDF	pg/g	2.5	**0.02**	**<0.0E0**	**200**
	OCDF	pg/g	2.5	**0.02**	**<0.0E0**	**200**
	OCDF	pg/g	2.5	5	<5	0
	OCDF	pg/g	2.5	0.0003	<0.0003	0

Prepared by: NC
Checked by: LY

CFA Training College, Fiskville
Preliminary Site Assessment

Table H10 - Sediment Results
Relative Percentage Difference

				SDG	EM1201412	EM1201412	
				Field_ID	SD10-10110/8010	DUP2-10110/8811	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012	
	OCDF	pg/g	2.5	**0.01**	**<0.0E0**	**200**
	OCDF	pg/g	2.5	**0.01**	**<0.0E0**	**200**
	OCDF	pg/g	2.5	**0.01**	**<0.0E0**	**200**
	Total TEQ	mg/kg	0	**0.0000027**	**6.2E-7**	**125**
	Total TEQ	mg/kg	0	0.0000049	0.00000309	45
	Total TEQ	mg/kg	0	0.0000071	0.00000555	25
	Total TEQ	mg/kg	0	**0.00000191**	**4.0E-7**	**131**
	Total TEQ	mg/kg	0	0.00000446	0.00000321	33
	Total TEQ	mg/kg	0	0.00000701	0.00000602	15
Perchlorate in Soils and Sediments by LC/MS	Perchlorate	mg/kg	0.01			
Perfluorooctyl Acids and Sulfonates by LC/MS/MS	6:2 Fluorotelomer Sulfonate (6:2 FtS)	mg/kg	0.005			
	Perfluorooctanoate	mg/kg	0.0005			
	PFOS	mg/kg	0.0005			
Semivolatile Organic Compounds	1,3,5-Trinitrobenzene	mg/kg	0.5			
	2,4,5-Trichlorophenol	mg/kg	0.5			
	2,4,6-Trichlorophenol	mg/kg	0.5			
	2,4-Dinitrotoluene	mg/kg	1			
	2,4-Dichlorophenol	mg/kg	0.5			
	2,6-Dinitrotoluene	mg/kg	1			
	2,6-Dichlorophenol	mg/kg	0.5			
	2-Chlorophenol	mg/kg	0.5			
	1,2,4-Trichlorobenzene	mg/kg	0.5			
	4-Chloro-3-methylphenol	mg/kg	0.5			
	1,2-Dichlorobenzene	mg/kg	0.5			
	Pentachlorophenol	mg/kg	1			
	1,3-Dichlorobenzene	mg/kg	0.5			
	1,4-Dichlorobenzene	mg/kg	0.5			
	Hexachlorobutadiene	mg/kg	0.5			
	Hexachloroethane	mg/kg	0.5			
	Pronamide	mg/kg	0.5			
	1-Naphthylamine	mg/kg	0.5			
	2-(Acetylamino) fluorene	mg/kg	0.5			
	2,4-Dimethylphenol	mg/kg	0.5			
	2-Chloronaphthalene	mg/kg	0.5			
	2-Methylnaphthalene	mg/kg	0.5			
	2-Methylphenol	mg/kg	0.5			
	2-Nitroaniline	mg/kg	1			
	2-Nitrophenol	mg/kg	0.5			
	2-Picoline	mg/kg	0.5			
	3- & 4- Methylphenol	mg/kg	0.5			
	3,3-Dichlorobenzidine	mg/kg	0.5			
	3-Methylcholanthrene	mg/kg	0.5			
	3-Nitroaniline	mg/kg	1			
	4-(Dimethylamino) azobenzene	mg/kg	0.5			
	4-Aminobiphenyl	mg/kg	0.5			
	4-Bromophenyl phenyl ether	mg/kg	0.5			
	4-Chloroaniline	mg/kg	0.5			
	4-Chlorophenyl phenyl ether	mg/kg	0.5			
	4-Nitroaniline	mg/kg	0.5			
	4-Nitroquinoline-n-oxide	mg/kg	0.5			
	2-methyl-5-nitroaniline	mg/kg	0.5			
	7,12-Dimethylbenz(a)anthracene	mg/kg	0.5			
	a-BHC	mg/kg	0.5			
	Acenaphthene	mg/kg	0.5			
	Acenaphthylene	mg/kg	0.5			
	Acetophenone	mg/kg	0.5			
	Aldrin	mg/kg	0.5			
	Aniline	mg/kg	0.5			
	Anthracene	mg/kg	0.5			
	Azobenzene	mg/kg	1			
	b-BHC	mg/kg	0.5			
	Benz(a)anthracene	mg/kg	0.5			
	Benzo(a)pyrene	mg/kg	0.5			
	Benzo(b)&(k)fluoranthene	mg/kg	1			
	Benzo(g,h,i)perylene	mg/kg	0.5			
	Bis(2-chloroethoxy) methane	mg/kg	0.5			
	Bis(2-chloroisopropyl) ether	mg/kg	0.5			
	Bis(2-ethylhexyl) phthalate	mg/kg	5			
	Butylbenzyl phthalate	mg/kg	0.5			
	Carbazole	mg/kg	0.5			
	Chlorfenvinphos	mg/kg	0.5			
	Chlorobenzilate	mg/kg	0.5			
	Chlorpyriphos	mg/kg	0.5			
	Chlorpyriphos-methyl	mg/kg	0.5			
	Chrysene	mg/kg	0.5			
	d-BHC	mg/kg	0.5			
	DDD	mg/kg	0.5			
	DDE	mg/kg	0.5			
	DDT	mg/kg	1			
	Diazinon	mg/kg	0.5			
	Dibenz(a,h)anthracene	mg/kg	0.5			
	Dibenzofuran	mg/kg	0.5			
	Dichlorvos	mg/kg	0.5			
	Dieldrin	mg/kg	0.5			
	Diethyl phthalate	mg/kg	0.5			
	Dimethoate	mg/kg	0.5			
	Dimethyl phthalate	mg/kg	0.5			
	Di-n-butyl phthalate	mg/kg	0.5			
	Di-n-octyl phthalate	mg/kg	0.5			
	Endosulfan I	mg/kg	0.5			
	Endosulfan II	mg/kg	0.5			
	Endosulfan sulphate	mg/kg	0.5			
	Endrin	mg/kg	0.5			
	Ethion	mg/kg	0.5			
	Fenthion	mg/kg	0.5			
	Fluoranthene	mg/kg	0.5			
	Fluorene	mg/kg	0.5			
	g-BHC	mg/kg	0.5			
	Heptachlor	mg/kg	0.5			
	Heptachlor epoxide	mg/kg	0.5			
	Hexachlorobenzene	mg/kg	1			
	Hexachlorocyclopentadiene	mg/kg	2.5			
	Hexachloropropene	mg/kg	0.5			
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5			
	Isophorone	mg/kg	0.5			
	Malathion	mg/kg	0.5			
	Methapyrilene	mg/kg	0.5			
	Naphthalene	mg/kg	0.5			
	Nitrobenzene	mg/kg	0.5			
	n-Nitrosodiethylamine	mg/kg	0.5			

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Table H10 - Sediment Results
Relative Percentage Difference

				SDG	EM1201412	EM1201412	
				Field_ID	SD10-10110/8010	DUP2-10110/8811	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012	
	N-Nitrosodi-n-butylamine	mg/kg	0.5				
	N-Nitrosodi-n-propylamine	mg/kg	0.5				
	n-Nitrosodiphenylamine & Diphenylamine	mg/kg	1				
	n-Nitrosomethylethylamine	mg/kg	0.5				
	n-Nitrosomorpholine	mg/kg	0.5				
	N-Nitrosopiperidine	mg/kg	0.5				
	n-Nitrosopyrrolidine	mg/kg	1				
	Phenanthrene	mg/kg	0.5				
	Pentachlorobenzene	mg/kg	0.5				
	Pentachloronitrobenzene	mg/kg	0.5				
	Phenacetin	mg/kg	0.5				
	Pyrene	mg/kg	0.5				
	Phenol	mg/kg	0.5				
	Pirimphos-ethyl	mg/kg	0.5				
	Prothiofos	mg/kg	0.5				
	PAH (Sum of Common 16 PAHs - Lab Reported)	mg/kg	0.5				
Total Mercury by FIMS (Low Level)	Mercury	mg/kg	0.01				
Total Metals in Sediments by ICPMS	Arsenic	mg/kg	1				
	Cadmium	mg/kg	0.1				
	Chromium	mg/kg	1				
	Copper	mg/kg	1				
	Lead	mg/kg	1				
	Nickel	mg/kg	1				
	Zinc	mg/kg	1				
Total Organic Carbon	Total Organic Carbon	mg/kg	200				
TPH - Semivolatile Fraction	TPH C10 - C14 Fraction	mg/kg	3				
	TPH C15 - C28 Fraction	mg/kg	3				
	TPH C29-C36 Fraction	mg/kg	5				
	TPH+C10 - C36 (Sum of total) (Lab Reported)	mg/kg	3				
TPH Volatiles/BTEX	Benzene	mg/kg	0.2				
	Ethylbenzene	mg/kg	0.5				
	Naphthalene	mg/kg	1				
	Toluene	mg/kg	0.5				
	TPH C 6 - C 9 Fraction	mg/kg	10				
	C6 - C10 Fraction	mg/kg	10				
	Xylenes (m & p)	mg/kg	0.5				
	Xylene (o)	mg/kg	0.5				
	Xylenes (Sum of total)	mg/kg	0.5				
	Total BTEX	mg/kg	0.2				
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/kg	0.5				
	1,1,2,2-Tetrachloroethane	mg/kg	0.5				
	1,1,1-Trichloroethane	mg/kg	0.5				
	1,1,2-Trichloroethane	mg/kg	0.5				
	1,2,3-Trichloropropane	mg/kg	0.5				
	1,2-Dibromo-3-chloropropane	mg/kg	0.5				
	1,2-Dibromoethane	mg/kg	0.5				
	1,1-Dichloroethane	mg/kg	0.5				
	1,2-Dichloroethane	mg/kg	0.5				
	1,1-Dichloroethene	mg/kg	0.5				
	1,2,3-Trichlorobenzene	mg/kg	0.5				
	cis-1,2-Dichloroethene	mg/kg	0.5				
	trans-1,2-dichloroethene	mg/kg	0.5				
	1,2-Dichloropropane	mg/kg	0.5				
	1,2,4-Trichlorobenzene	mg/kg	0.5				
	1,3-Dichloropropane	mg/kg	0.5				
	1,2,4-trimethylbenzene	mg/kg	0.5				
	2,2-Dichloropropane	mg/kg	0.5				
	1,1-Dichloropropene	mg/kg	0.5				
	cis-1,3-Dichloropropene	mg/kg	0.5				
	trans-1,3-dichloropropene	mg/kg	0.5				
	1,2-Dichlorobenzene	mg/kg	0.5				
	cis-1,4-Dichloro-2-butene	mg/kg	0.5				
	trans-1,4-Dichloro-2-butene	mg/kg	0.5				
	1,3,5-Trimethylbenzene	mg/kg	0.5				
	1,3-Dichlorobenzene	mg/kg	0.5				
	Bromodichloromethane	mg/kg	0.5				
	Bromoform	mg/kg	0.5				
	Bromomethane	mg/kg	5				
	1,4-Dichlorobenzene	mg/kg	0.5				
	Carbon disulfide	mg/kg	0.5				
	Carbon tetrachloride	mg/kg	0.5				
	Chlorodibromomethane	mg/kg	0.5				
	Chloroethane	mg/kg	5				
	Chloroform	mg/kg	0.5				
	Chloromethane	mg/kg	5				
	Dibromomethane	mg/kg	0.5				
	Dichlorodifluoromethane	mg/kg	5				
	Hexachlorobutadiene	mg/kg	0.5				
	Iodomethane	mg/kg	0.5				
	Pentachloroethane	mg/kg	0.5				
	Trichloroethene	mg/kg	0.5				
	Tetrachloroethene	mg/kg	0.5				
	Trichlorofluoromethane	mg/kg	5				
	Vinyl chloride	mg/kg	5				
	Methyl Ethyl Ketone	mg/kg	5				
	2-Chlorotoluene	mg/kg	0.5				
	2-Hexanone	mg/kg	5				
	4-Chlorotoluene	mg/kg	0.5				
	4-Methyl-2-pentanone	mg/kg	5				
	Bromobenzene	mg/kg	0.5				
	Chlorobenzene	mg/kg	0.5				
	Isopropylbenzene	mg/kg	0.5				
	Naphthalene	mg/kg	5				
	n-Butylbenzene	mg/kg	0.5				
	n-Propylbenzene	mg/kg	0.5				
	p-Isopropyltoluene	mg/kg	0.5				
	sec-Butylbenzene	mg/kg	0.5				
	Styrene	mg/kg	0.5				
	tert-Butylbenzene	mg/kg	0.5				
	Vinyl acetate	mg/kg	5				

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to thos

Prepared by: NC
Checked by: LY

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Table H11 - Surface Water Results
Relative Percentage Difference

				SDG	EM1201357	EM1201357	
				Field_ID	SW6-1016/6006	DUP1_1016/6807	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012	
Method_Type	**ChemName**	**Units**	**LOR**				
Dissolved Mercury by FIMS	Mercury (Filtered)	mg/l	0.0001	<0.0001	<0.0001	0
Dissolved Metals by ICP-MS - Suite A	Arsenic (Filtered)	mg/l	0.001	0.001	<0.001	0
	Cadmium (Filtered)	mg/l	0.0001	0.0004	0.0003	29
	Chromium (Filtered)	mg/l	0.001	<0.001	<0.001	0
	Copper (Filtered)	mg/l	0.001	**0.002**	**<0.001**	**67**
	Lead (Filtered)	mg/l	0.001	<0.001	<0.001	0
	Nickel (Filtered)	mg/l	0.001	0.004	0.004	0
	Zinc (Filtered)	mg/l	0.005	**0.026**	**0.012**	**74**
Perchlorate by LC/MS	Perchlorate	mg/l	0.0002	<0.0002	<0.0002	0
Pesticides by GCMS	a-BHC	mg/l	0.0005	<0.0005	<0.0005	0
	Aldrin	mg/l	0.0005	<0.0005	<0.0005	0
	Azinphos-methyl	mg/l	0.0005	<0.0005	<0.0005	0
	b-BHC	mg/l	0.0005	<0.0005	<0.0005	0
	Bromophos-ethyl	mg/l	0.0005	<0.0005	<0.0005	0
	Carbophenothion	mg/l	0.0005	<0.0005	<0.0005	0
	cis-Chlordane	mg/l	0.0005	<0.0005	<0.0005	0
	trans-Chlordane	mg/l	0.0005	<0.0005	<0.0005	0
	Chlorfenvinphos	mg/l	0.0005	<0.0005	<0.0005	0
	Chlorpyriphos	mg/l	0.0005	<0.0005	<0.0005	0
	Chlorpyriphos-methyl	mg/l	0.0005	<0.0005	<0.0005	0
	d-BHC	mg/l	0.0005	<0.0005	<0.0005	0
	DDD	mg/l	0.0005	<0.0005	<0.0005	0
	DDE	mg/l	0.0005	<0.0005	<0.0005	0
	DDT	mg/l	0.002	<0.002	<0.002	0
	Demeton-s-methyl	mg/l	0.0005	<0.0005	<0.0005	0
	Diazinon	mg/l	0.0005	<0.0005	<0.0005	0
	Dichlorvos	mg/l	0.0005	<0.0005	<0.0005	0
	Dieldrin	mg/l	0.0005	<0.0005	<0.0005	0
	Dimethoate	mg/l	0.0005	<0.0005	<0.0005	0
	Endosulfan I	mg/l	0.0005	<0.0005	<0.0005	0
	Endosulfan II	mg/l	0.0005	<0.0005	<0.0005	0
	Endosulfan sulphate	mg/l	0.0005	<0.0005	<0.0005	0
	Endrin	mg/l	0.0005	<0.0005	<0.0005	0
	Endrin aldehyde	mg/l	0.0005	<0.0005	<0.0005	0
	Endrin ketone	mg/l	0.0005	<0.0005	<0.0005	0
	Ethion	mg/l	0.0005	<0.0005	<0.0005	0
	Fenamiphos	mg/l	0.0005	<0.0005	<0.0005	0
	Fenthion	mg/l	0.0005	<0.0005	<0.0005	0
	g-BHC	mg/l	0.0005	<0.0005	<0.0005	0
	Heptachlor	mg/l	0.0005	<0.0005	<0.0005	0
	Heptachlor epoxide	mg/l	0.0005	<0.0005	<0.0005	0
	Hexachlorobenzene	mg/l	0.0005	<0.0005	<0.0005	0
	Malathion	mg/l	0.0005	<0.0005	<0.0005	0
	Methoxychlor	mg/l	0.002	<0.002	<0.002	0
	Parathion-methyl	mg/l	0.002	<0.002	<0.002	0
	Monocrotophos	mg/l	0.002	<0.002	<0.002	0
	Parathion	mg/l	0.002	<0.002	<0.002	0
	Pirimphos-ethyl	mg/l	0.0005	<0.0005	<0.0005	0
	Prothiofos	mg/l	0.0005	<0.0005	<0.0005	0
PFOS and PFOA	6:2 Fluorotelomer Sulfonate (6:2 FtS)	mg/l	0.0001	0.192	0.206	7
	Perfluorooctanoate	mg/l	2e-005	0.0113	0.0121	7
	PFOS	mg/l	2e-005	0.122	0.0946	25
Polychlorinated Biphenyls (PCB)	PCB (Sum of Total-Lab Reported)	mg/l	0.001	<0.001	<0.001	0
Semivolatile Organic Compounds	1,3,5-Trinitrobenzene	mg/l	0.002	<0.002	<0.002	0
	2,4,5-Trichlorophenol	mg/l	0.002	<0.002	<0.002	0
	2,4,6-Trichlorophenol	mg/l	0.002	<0.002	<0.002	0
	2,4-Dinitrotoluene	mg/l	0.004	<0.004	<0.004	0
	2,4-Dichlorophenol	mg/l	0.002	<0.002	<0.002	0
	2,6-Dinitrotoluene	mg/l	0.004	<0.004	<0.004	0
	2,6-Dichlorophenol	mg/l	0.002	<0.002	<0.002	0
	2-Chlorophenol	mg/l	0.002	<0.002	<0.002	0
	1,2,4-Trichlorobenzene	mg/l	0.002	<0.002	<0.002	0
	4-Chloro-3-methylphenol	mg/l	0.002	<0.002	<0.002	0
	1,2-Dichlorobenzene	mg/l	0.002	<0.002	<0.002	0
	Pentachlorophenol	mg/l	0.004	<0.004	<0.004	0
	1,3-Dichlorobenzene	mg/l	0.002	<0.002	<0.002	0
	1,4-Dichlorobenzene	mg/l	0.002	<0.002	<0.002	0
	Hexachlorobutadiene	mg/l	0.002	<0.002	<0.002	0
	Hexachloroethane	mg/l	0.002	<0.002	<0.002	0
	Pronamide	mg/l	0.002	<0.002	<0.002	0
	1-Naphthylamine	mg/l	0.002	<0.002	<0.002	0
	2-(Acetylamino) fluorene	mg/l	0.002	<0.002	<0.002	0
	2,4-Dimethylphenol	mg/l	0.002	<0.002	<0.002	0
	2-Chloronaphthalene	mg/l	0.002	<0.002	<0.002	0
	2-Methylnaphthalene	mg/l	0.002	<0.002	<0.002	0
	2-Methylphenol	mg/l	0.002	<0.002	<0.002	0
	2-Nitroaniline	mg/l	0.004	<0.004	<0.004	0
	2-Nitrophenol	mg/l	0.002	<0.002	<0.002	0
	2-Picoline	mg/l	0.002	<0.002	<0.002	0
	3- & 4- Methylphenol	mg/l	0.004	<0.004	<0.004	0
	3,3-Dichlorobenzidine	mg/l	0.002	<0.002	<0.002	0
	3-Methylcholanthrene	mg/l	0.002	<0.002	<0.002	0
	3-Nitroaniline	mg/l	0.004	<0.004	<0.004	0
	4-(Dimethylamino) azobenzene	mg/l	0.002	<0.002	<0.002	0
	4-Aminobiphenyl	mg/l	0.002	<0.002	<0.002	0
	4-Bromophenyl phenyl ether	mg/l	0.002	<0.002	<0.002	0
	4-Chloroaniline	mg/l	0.002	<0.002	<0.002	0
	4-Chlorophenyl phenyl ether	mg/l	0.002	<0.002	<0.002	0
	4-Nitroaniline	mg/l	0.002	<0.002	<0.002	0
	4-Nitroquinoline-n-oxide	mg/l	0.002	<0.002	<0.002	0
	2-methyl-5-nitroaniline	mg/l	0.002	<0.002	<0.002	0
	7,12-Dimethylbenz(a)anthracene	mg/l	0.002	<0.002	<0.002	0
	a-BHC	mg/l	0.002	<0.002	<0.002	0
	Acenaphthene	mg/l	0.002	<0.002	<0.002	0

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Table H11 - Surface Water Results
Relative Percentage Difference

				SDG	EM1201357	EM1201357	
				Field_ID	SW6-1016/6006	DUP1_1016/6807	RPD
				Sampled_Date-Time	8/02/2012	8/02/2012	
	Acenaphthylene	mg/l	0.002		<0.002	<0.002	0
	Acetophenone	mg/l	0.002		<0.002	<0.002	0
	Aldrin	mg/l	0.002		<0.002	<0.002	0
	Aniline	mg/l	0.002		<0.002	<0.002	0
	Anthracene	mg/l	0.002		<0.002	<0.002	0
	Azobenzene	mg/l	0.002		<0.002	<0.002	0
	b-BHC	mg/l	0.002		<0.002	<0.002	0
	Benz(a)anthracene	mg/l	0.002		<0.002	<0.002	0
	Benzo(a)pyrene	mg/l	0.002		<0.002	<0.002	0
	Benzo(b)&(k)fluoranthene	mg/l	0.004		<0.004	<0.004	0
	Benzo(g,h,i)perylene	mg/l	0.002		<0.002	<0.002	0
	Bis(2-chloroethoxy) methane	mg/l	0.002		<0.002	<0.002	0
	Bis(2-chloroisopropyl) ether	mg/l	0.002		<0.002	<0.002	0
	Bis(2-ethylhexyl) phthalate	mg/l	0.005		<0.01	<0.01	0
	Butylbenzyl phthalate	mg/l	0.002		<0.002	<0.002	0
	Carbazole	mg/l	0.002		<0.002	<0.002	0
	Chlorfenvinphos	mg/l	0.002		<0.002	<0.002	0
	Chlorobenzilate	mg/l	0.002		<0.002	<0.002	0
	Chlorpyriphos	mg/l	0.002		<0.002	<0.002	0
	Chlorpyriphos-methyl	mg/l	0.002		<0.002	<0.002	0
	Chrysene	mg/l	0.002		<0.002	<0.002	0
	d-BHC	mg/l	0.002		<0.002	<0.002	0
	DDD	mg/l	0.002		<0.002	<0.002	0
	DDE	mg/l	0.002		<0.002	<0.002	0
	DDT	mg/l	0.004		<0.004	<0.004	0
	Diazinon	mg/l	0.002		<0.002	<0.002	0
	Dibenz(a,h)anthracene	mg/l	0.002		<0.002	<0.002	0
	Dibenzofuran	mg/l	0.002		<0.002	<0.002	0
	Dichlorvos	mg/l	0.002		<0.002	<0.002	0
	Dieldrin	mg/l	0.002		<0.002	<0.002	0
	Diethyl phthalate	mg/l	0.002		<0.002	<0.002	0
	Dimethoate	mg/l	0.002		<0.002	<0.002	0
	Dimethyl phthalate	mg/l	0.002		<0.002	<0.002	0
	Di-n-butyl phthalate	mg/l	0.002		<0.002	<0.002	0
	Di-n-octyl phthalate	mg/l	0.002		<0.002	<0.002	0
	Endosulfan I	mg/l	0.002		<0.002	<0.002	0
	Endosulfan II	mg/l	0.002		<0.002	<0.002	0
	Endosulfan sulphate	mg/l	0.002		<0.002	<0.002	0
	Endrin	mg/l	0.002		<0.002	<0.002	0
	Ethion	mg/l	0.002		<0.002	<0.002	0
	Fenthion	mg/l	0.002		<0.002	<0.002	0
	Fluoranthene	mg/l	0.002		<0.002	<0.002	0
	Fluorene	mg/l	0.002		<0.002	<0.002	0
	g-BHC	mg/l	0.002		<0.002	<0.002	0
	Heptachlor	mg/l	0.002		<0.002	<0.002	0
	Heptachlor epoxide	mg/l	0.002		<0.002	<0.002	0
	Hexachlorobenzene	mg/l	0.004		<0.004	<0.004	0
	Hexachlorocyclopentadiene	mg/l	0.01		<0.01	<0.01	0
	Hexachloropropene	mg/l	0.002		<0.002	<0.002	0
	Indeno(1,2,3-c,d)pyrene	mg/l	0.002		<0.002	<0.002	0
	Isophorone	mg/l	0.002		<0.002	<0.002	0
	Malathion	mg/l	0.002		<0.002	<0.002	0
	Methapyrilene	mg/l	0.002		<0.002	<0.002	0
	Naphthalene	mg/l	0.002		<0.002	<0.002	0
	Nitrobenzene	mg/l	0.002		<0.002	<0.002	0
	n-Nitrosodiethylamine	mg/l	0.002		<0.002	<0.002	0
	N-Nitrosodi-n-butylamine	mg/l	0.002		<0.002	<0.002	0
	N-Nitrosodi-n-propylamine	mg/l	0.002		<0.002	<0.002	0
	n-Nitrosodiphenylamine & Diphenylamine	mg/l	0.004		<0.004	<0.004	0
	n-Nitrosomethylethylamine	mg/l	0.002		<0.002	<0.002	0
	n-Nitrosomorpholine	mg/l	0.002		<0.002	<0.002	0
	N-Nitrosopiperidine	mg/l	0.002		<0.002	<0.002	0
	n-Nitrosopyrrolidine	mg/l	0.004		<0.004	<0.004	0
	Phenanthrene	mg/l	0.002		<0.002	<0.002	0
	Pentachlorobenzene	mg/l	0.002		<0.002	<0.002	0
	Pentachloronitrobenzene	mg/l	0.002		<0.002	<0.002	0
	Phenacetin	mg/l	0.002		<0.002	<0.002	0
	Pyrene	mg/l	0.002		<0.002	<0.002	0
	Phenol	mg/l	0.002		<0.002	<0.002	0
	Pirimphos-ethyl	mg/l	0.002		<0.002	<0.002	0
	Prothiofos	mg/l	0.002		<0.002	<0.002	0
	PAH (Sum of Common 16 PAHs - Lab Reported)	mg/l	0.002		<0.005	<0.005	0
TPH - Semivolatile Fraction	TPH C10 - C14 Fraction	mg/l	0.05		0.16	0.24	40
	TPH C15 - C28 Fraction	mg/l	0.1		2.1	2.65	23
	TPH C29-C36 Fraction	mg/l	0.05		0.26	0.25	4
	TPH+C10 - C36 (Sum of total) (Lab Reported)	mg/l	0.05		2.52	3.14	22
	TPH+C10 - C40 (Sum of total) (Lab Reported)	mg/l	0.1		2.58	3.18	21
	>C10 - C16 Fraction	mg/l	0.1		0.47	0.62	28
	>C16 - C34 Fraction	mg/l	0.1		2	2.45	20
	>C34 - C40 Fraction	mg/l	0.1		0.11	0.11	0
TPH Volatiles/BTEX	Benzene	mg/l	0.001		<0.001	<0.001	0
	Ethylbenzene	mg/l	0.002		<0.002	<0.002	0
	Naphthalene	mg/l	0.005		<0.005	<0.005	0
	Toluene	mg/l	0.002		<0.002	<0.002	0
	TPH C 6 - C 9 Fraction	mg/l	0.02		0.03	<0.02	40
	C6 - C10 Fraction	mg/l	0.02		**0.04**	**0.02**	**67**
	C6 - C10 Fraction minus BTEX (F1)	mg/l	0.02		**0.04**	**<0.02**	**67**
	Xylenes (m & p)	mg/l	0.002		0.002	0.003	40
	Xylene (o)	mg/l	0.002		<0.002	<0.002	0
	Xylenes (Sum of total)	mg/l	0.002		0.002	0.003	40
	Total BTEX	mg/l	0.001		0.002	0.003	40
Volatile Organic Compounds	1,1,1,2-Tetrachloroethane	mg/l	0.005		<0.005	<0.005	0
	1,1,2,2-Tetrachloroethane	mg/l	0.005		<0.005	<0.005	0
	1,1,1-Trichloroethane	mg/l	0.005		<0.005	<0.005	0
	1,1,2-Trichloroethane	mg/l	0.005		<0.005	<0.005	0
	1,2,3-Trichloropropane	mg/l	0.005		<0.005	<0.005	0
	1,2-Dibromo-3-chloropropane	mg/l	0.005		<0.005	<0.005	0
	1,2-Dibromoethane	mg/l	0.005		<0.005	<0.005	0

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Preliminary Site Assessment

Table H11 - Surface Water Results
Relative Percentage Difference

			SDG	EM1201357	EM1201357	
			Field_ID	SW6-1016/6006	DUP1_1016/6807	RPD
			Sampled_Date-Time	8/02/2012	8/02/2012	
	1,1-Dichloroethane	mg/l	0.005	<0.005	<0.005	0
	1,2-Dichloroethane	mg/l	0.005	<0.005	<0.005	0
	1,1-Dichloroethene	mg/l	0.005	<0.005	<0.005	0
	1,2,3-Trichlorobenzene	mg/l	0.005	<0.005	<0.005	0
	cis-1,2-Dichloroethene	mg/l	0.005	<0.005	<0.005	0
	trans-1,2-dichloroethene	mg/l	0.005	<0.005	<0.005	0
	1,2-Dichloropropane	mg/l	0.005	<0.005	<0.005	0
	1,3-Dichloropropane	mg/l	0.005	<0.005	<0.005	0
	1,2,4-trimethylbenzene	mg/l	0.005	<0.005	<0.005	0
	2,2-Dichloropropane	mg/l	0.005	<0.005	<0.005	0
	1,1-Dichloropropene	mg/l	0.005	<0.005	<0.005	0
	cis-1,3-Dichloropropene	mg/l	0.005	<0.005	<0.005	0
	trans-1,3-dichloropropene	mg/l	0.005	<0.005	<0.005	0
	cis-1,4-Dichloro-2-butene	mg/l	0.005	<0.005	<0.005	0
	trans-1,4-Dichloro-2-butene	mg/l	0.005	<0.005	<0.005	0
	1,3,5-Trimethylbenzene	mg/l	0.005	<0.005	<0.005	0
	Bromodichloromethane	mg/l	0.005	<0.005	<0.005	0
	Bromoform	mg/l	0.005	<0.005	<0.005	0
	Bromomethane	mg/l	0.05	<0.05	<0.05	0
	Carbon disulfide	mg/l	0.005	<0.005	<0.005	0
	Carbon tetrachloride	mg/l	0.005	<0.005	<0.005	0
	Chlorodibromomethane	mg/l	0.005	<0.005	<0.005	0
	Chloroethane	mg/l	0.05	<0.05	<0.05	0
	Chloroform	mg/l	0.005	<0.005	<0.005	0
	Chloromethane	mg/l	0.05	<0.05	<0.05	0
	Dibromomethane	mg/l	0.005	<0.005	<0.005	0
	Dichlorodifluoromethane	mg/l	0.05	<0.05	<0.05	0
	Iodomethane	mg/l	0.005	<0.005	<0.005	0
	Pentachloroethane	mg/l	0.005	<0.005	<0.005	0
	Trichloroethene	mg/l	0.005	<0.005	<0.005	0
	Tetrachloroethene	mg/l	0.005	<0.005	<0.005	0
	Trichlorofluoromethane	mg/l	0.05	<0.05	<0.05	0
	Vinyl chloride	mg/l	0.05	<0.05	<0.05	0
	Methyl Ethyl Ketone	mg/l	0.05	<0.05	<0.05	0
	2-Chlorotoluene	mg/l	0.005	<0.005	<0.005	0
	2-Hexanone	mg/l	0.05	<0.05	<0.05	0
	4-Chlorotoluene	mg/l	0.005	<0.005	<0.005	0
	4-Methyl-2-pentanone	mg/l	0.05	<0.05	<0.05	0
	Benzene	mg/l	0.001	<0.001	<0.001	0
	Bromobenzene	mg/l	0.005	<0.005	<0.005	0
	Chlorobenzene	mg/l	0.005	<0.005	<0.005	0
	Ethylbenzene	mg/l	0.002	<0.002	<0.002	0
	Isopropylbenzene	mg/l	0.005	<0.005	<0.005	0
	n-Butylbenzene	mg/l	0.005	<0.005	<0.005	0
	n-Propylbenzene	mg/l	0.005	<0.005	<0.005	0
	p-Isopropyltoluene	mg/l	0.005	<0.005	<0.005	0
	sec-Butylbenzene	mg/l	0.005	<0.005	<0.005	0
	Styrene	mg/l	0.005	<0.005	<0.005	0
	tert-Butylbenzene	mg/l	0.005	<0.005	<0.005	0
	Toluene	mg/l	0.002	<0.002	<0.002	0
	Vinyl acetate	mg/l	0.05	<0.05	<0.05	0
	Xylenes (m & p)	mg/l	0.002	0.002	0.002	0
	Xylene (o)	mg/l	0.002	<0.002	<0.002	0

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratc

Table H12 - Sediment PFOS/PFOA Results
Relative Percentage Difference

						Other		
						6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS
						mg/kg	mg/kg	mg/kg
LOR						0.005	0.0005	0.0005
	Location	**Field_ID**	**Sampled_Date_Time**	**SDG**	**SampleCode**			
Interlab Duplicate	SD10	10110/8910	8/02/2012	326794	M12-Fe06439	1	0.94	210
Primary Sample	SD10	SD10 - 10110/8010	8/02/2012	EM1201358	EM1201358010	0.882	1.24	66
RPD						13	28	**104**

Table H13 - Surface Water PFOS/PFOA Results
Relative Percentage Difference

						Other		
						6:2 Fluorotelomer Sulfonate (6:2 FtS)	Perfluorooctanoate	PFOS
						mg/L	mg/L	mg/L
LOR						0.0001	0.00002	0.00002
	Location_Code	**Field_ID**	**Sampled_Date_T**	**SDG**	**SampleCode**			
Interlab Duplicate	SW6	1016/6906	8/02/2012	326794	M12-Fe06440	0.29	0.01	0.029
Primary Sample	SW6	SW6-1016/	8/02/2012	EM120135	EM1201357006	0.192	0.0113	0.122
	RPD					**41**	12	**123**

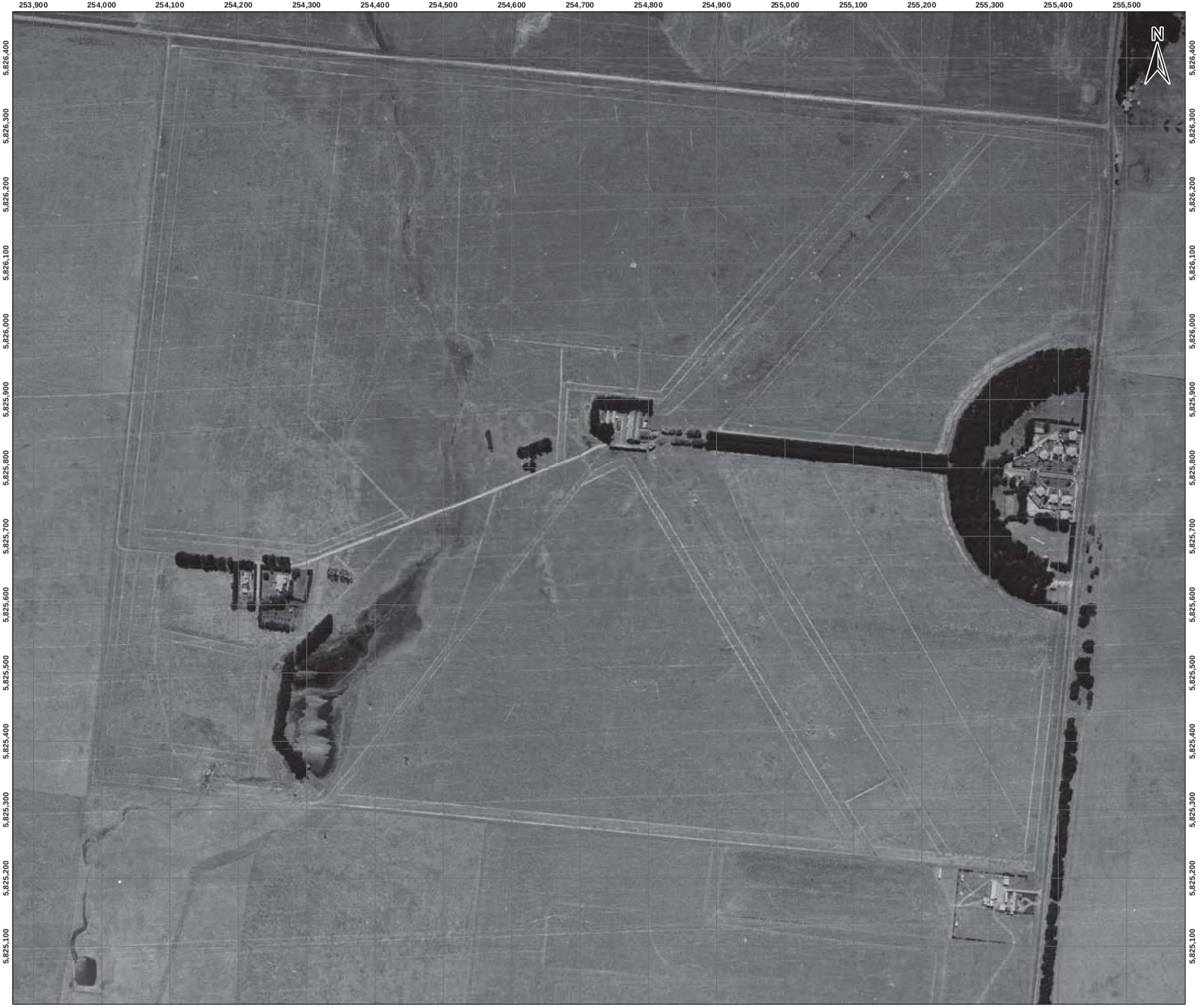
Table H14 - Sediment PCDD/F Results
Relative Percentage Difference

Sample Duplicate	Location_Code	Field_ID	Sampled_Date_1	SDG	SampleCode		1,2,3,7,8-PeCDD	1,2,3,4,7,8-HxCDD	1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD	1,2,3,4,6,7,8-HpCDD	OCDD	2,3,7,8-TCDF	1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF	1,2,3,4,7,8-HxCDF	2,3,7,8-Tetrachlorooxanthrene	1,2,3,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF	1,2,3,7,8,9-HxCDF	1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF	OCDF
Sample Duplicate	**Location_Code**	**Field_ID**	**Sampled_Date_1**	**SDG**	**SampleCode**	**Units:**	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
Primary Sample	SD10	10110/8910	8/02/2012	326794	EM1201412005		<2.5	<2.5	2.8	2.9	77.6	1,110	1	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	12.8	<2.5	16.9
Interlab Duplicate	SD10	SD10 - 10110/8010	8/02/2012	EM1201358	Fe06439 Soil		0.735	0.65	1.49	1.31	29.1	326	0.963	0.621	0.779	1.41	0.2	0.732	0.478	<0.4	4.66	0.617	7.35
						RPD	**109.119**	**117.4603**	**61.07226**	**75.53444**	**90.90909**	**109.1922**	3.76974	**120.4101**	**104.971**	**55.75448**	**85.71429**	**109.4059**	**135.7958**	**144.8276**	**93.2417**	**120.8213**	**78.76289**

Sample Duplicate	Location_Code	Field_ID	Sampled_Date_1	SDG	SampleCode		Total TEQ	WHO-TEQ (zero)	WHO-TEQ (0.5 LOR)	WHO-TEQ (LOR)
Sample Duplicate	**Location_Code**	**Field_ID**	**Sampled_Date_1**	**SDG**	**SampleCode**	**Units:**		pg/g	pg/g	pg/g
Primary	SD10	10110/8910	8/02/2012	326794	EM1201412005			1.91	4.46	7.01
Laboratory	SD10	SD10 - 10110/8010	8/02/2012	EM1201358	Fe06439 Soil			2.33	2.35	2.37
						RPD		19.81132	**61.96769**	**98.9339**

APPENDIX I

Aerial Photographs



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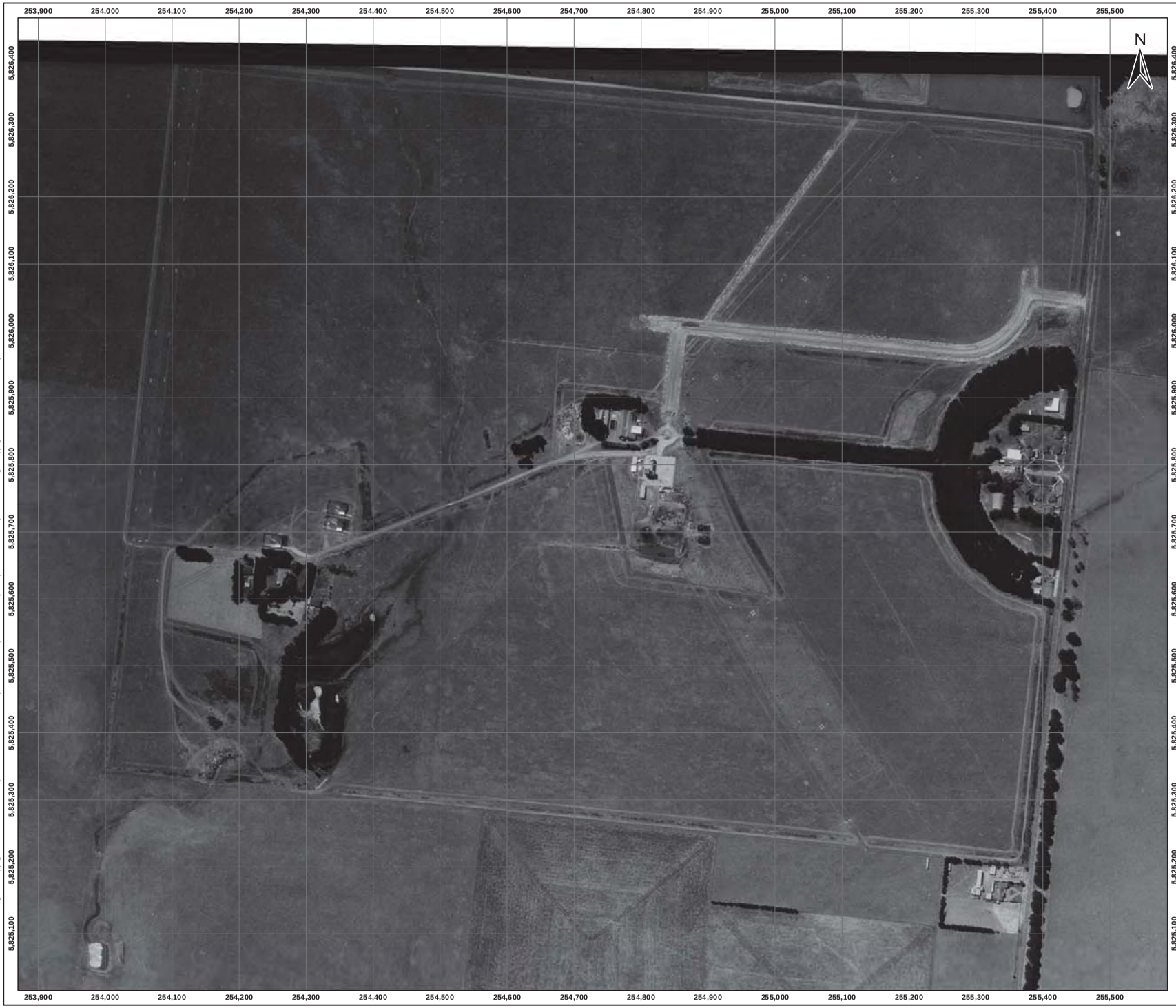

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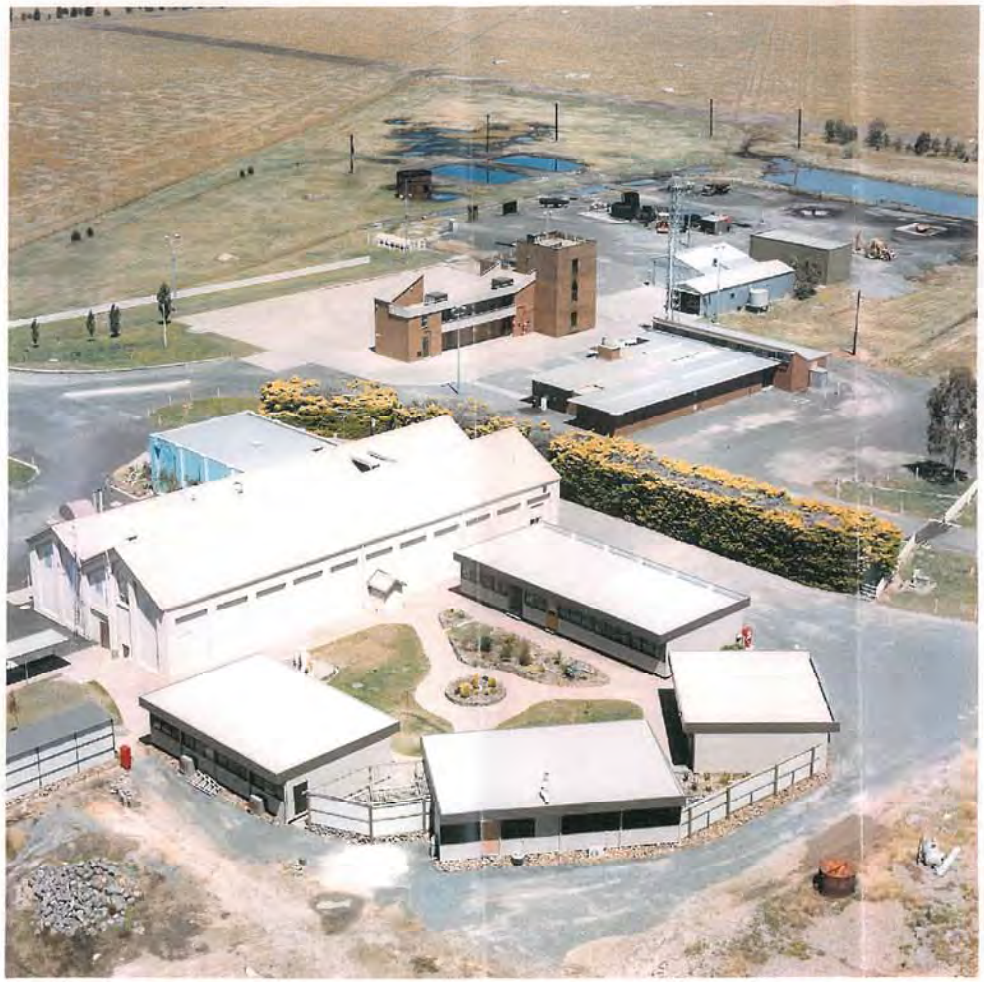

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File Location: J:\Env\2011\117613201 - CFA Fiskville Investigation\Technical Doc\GIS\Project\117613201_002_APP-I_F00P4_Rev0.mxd

CFA TRAINING COLLEGE, FISKVILLE - PRELIMINARY SITE ASSESSMENT

INDEPENDENT FISKVILLE INVESTIGATION

OBLIQUE PHOTOGRAPH 5
1989

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PROJECT: **117613201**
DATE: **15 JUN 2012**
DRAWN: **JPH**
CHECKED: **KRM**

PHOTO 5

Golder Associates

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File Location: J:\Env\2011\117613201 - CFA Fiskville Investigation\Technical Doc\GIS\Project\117613201_002_APP-I_F00P5_Rev0.mxd

APPENDIX J

Laboratory Reports

AsureQuality

1C Quadrant Drive, Waiwhetu
P.O. Box 31 242, Lower Hutt 5010
Wellington, New Zealand

T 64 4 5708800
F 64 4 5708176
W www.asurequality.com

Certificate of Analysis

Date Issued: 15 March 2012

Client: mgt-Labmark Environmental Pty Ltd
2-5 Kingston Town Close
Oakleigh
VIC 3166
Australia

Attention: Andrew Thexton

AsureQuality Lab. Reference: 107033

Sample Type(s): Aqueous

Analysis: **Perfluorinated Compounds (PFCs)**

Method: In-House LC-MS/MS Method

Results are reported as nanograms per litre (ng/L), on an as received basis to two significant figures. The LOR value is reported to two significant figures. Results have been corrected for recovery.

Unless requested, samples will be disposed of eight weeks from the date of this report.

Comments:
The requirement for dilution analysis has resulted in some higher than normal LORs.
Results for PFDS, PFOSA and 4:2 FTS are not available due to the nature of the sample.

Glen Fern
Senior Scientist
AsureQuality Limited

ilac-MRA 131 new zealand accredited laboratory

Results: Perfluorinated Compounds

Laboratory Reference: 107033-2

Sample Identification: Fe06440 Water

Date Received: 15 February 2012 Date Analysed: 6 March 2012

Date Extracted: 6 March 2012

Analyte[1]	Conc.[2] (ng/L)	LOR (ng/L)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	9900	160	
Perfluorohexanesulfonic acid (PFHxS)	43000	160	
Perfluorooctanesulfonic acid (PFOS)[3]	29000	2000	
Perfluorodecanesulfonic acid (PFDS)	NQ	-	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	59000	160	
Perfluoroheptanoic acid (PFHpA)	13000	160	
Perfluorooctanoic acid (PFOA)	10000	310	
Perfluorononanoic acid (PFNA)	210	6.3	
Perfluorodecanoic acid (PFDA)	65	6.3	
Perfluoroundecanoic acid (PFUnA)	17	6.3	
Perfluorododecanoic acid (PFDoA)	17	6.3	
Perfluorotridecanoic acid (PFTrDA)	ND	31	
Perfluorotetradecanoic acid (PFTeDA)	ND	31	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	NQ	-	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	13	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	19	
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS)	NQ	-	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	290000	12000	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	8300	8000	

Footnotes:

[1] The analytes listed represent the linear isomer.

[2] Results are reported on an as received basis.

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting

ND: Not Detected

NQ: Not Quantifiable

Lab Analyst: NEM Data Analyst: NEM Authorised: GF

THIS REPORT MUST ONLY BE REPRODUCED IN ITS ENTIRETY

Results: Perfluorinated Compounds

Laboratory Reference: 107033-BLB

Sample Identification: Laboratory Blank B

Date Received: Not Applicable
Date Analysed: 6 March 2012
Date Extracted: 6 March 2012

Analyte[1]	Conc.[2] (ng/L)	LOR (ng/L)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	ND	3.1	
Perfluorohexanesulfonic acid (PFHxS)	ND	3.1	
Perfluorooctanesulfonic acid (PFOS)[3]	ND	3.1	
Perfluorodecanesulfonic acid (PFDS)	ND	13	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	ND	3.1	
Perfluoroheptanoic acid (PFHpA)	ND	3.1	
Perfluorooctanoic acid (PFOA)	ND	6.3	
Perfluorononanoic acid (PFNA)	ND	6.3	
Perfluorodecanoic acid (PFDA)	ND	6.3	
Perfluoroundecanoic acid (PFUnA)	ND	6.3	
Perfluorododecanoic acid (PFDoA)	ND	6.3	
Perfluorotridecanoic acid (PFTrDA)	ND	31	
Perfluorotetradecanoic acid (PFTeDA)	ND	31	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	ND	6.3	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	13	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	19	
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2 FTS)	ND	6.3	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	ND	19	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	ND	13	

Footnotes:

[1] The analytes listed represent the linear isomer.

[2] The results are calculated using the average volume of samples in this batch.

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting
ND: Not Detected

Lab Analyst: NEM
Data Analyst: NEM
Authorised: GF

THIS REPORT MUST ONLY BE REPRODUCED IN ITS ENTIRETY

AsureQuality

1C Quadrant Drive, Waiwhetu
P.O. Box 31 242, Lower Hutt 5010
Wellington, New Zealand

T 64 4 5708800
F 64 4 5708176
W www.asurequality.com

Certificate of Analysis

Date Issued: 8 March 2012

Client: mgt-Labmark Environmental Pty Ltd
2-5 Kingston Town Close
Oakleigh
VIC 3166
Australia

Attention: Andrew Thexton

AsureQuality Lab. Reference: 107033-1

Sample Type(s): Soil

Analysis: **Perfluorinated Compounds (PFCs)**

Method: In-House LC-MS/MS Method

Samples were passed through a 2mm sieve prior to analysis. Material that did not pass through the sieve was not included in the analysis.

Results are reported as nanograms per gram (ng/g), on a dry weight basis to two significant figures. The LOR value is reported to two significant figures. Results have been corrected for recovery.

Unless requested, samples will be disposed of eight weeks from the date of this report.

Comments:
The requirement for dilution analysis has resulted in some higher than normal LORs.

Glen Fern
Senior Scientist
AsureQuality Limited

Results: Perfluorinated Compounds

Laboratory Reference: 107033-1

Sample Identification: Fe06439 Soil

Date Received: 15 February 2012 Date Analysed: 2 March 2012

Date Extracted: 1 March 2012

Analyte[1]	Conc.[2] (ng/g)	LOR (ng/g)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	33	1.0	
Perfluorohexanesulfonic acid (PFHxS)	510	100	
Perfluorooctanesulfonic acid (PFOS)[3]	210000	5000	
Perfluorodecanesulfonic acid (PFDS)	1500	100	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	770	100	
Perfluoroheptanoic acid (PFHpA)	200	1.0	
Perfluorooctanoic acid (PFOA)	940	100	
Perfluorononanoic acid (PFNA)	34	1.0	
Perfluorodecanoic acid (PFDA)	190	1.0	
Perfluoroundecanoic acid (PFUnA)	100	2.0	
Perfluorododecanoic acid (PFDoA)	73	1.0	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	540	100	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	11	4.0	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	44	4.0	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	1000	200	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	6700	400	

Footnotes:

[1] The analytes listed represent the linear isomer

[2] Results are reported on a dry weight basis.

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting

ND: Not Detected

Lab Analyst: CFH/SW Data Analyst: CFH Authorised: GF

THIS REPORT MUST ONLY BE REPRODUCED IN ITS ENTIRETY

Results: Perfluorinated Compounds

Laboratory Reference: 107033-BLA

Sample Identification: Laboratory Blank A

Date Received: Not Applicable Date Analysed: 2 March 2012

Date Extracted: 1 March 2012

Analyte[1]	Conc.[2] (ng/g)	LOR (ng/g)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	ND	1.0	
Perfluorohexanesulfonic acid (PFHxS)	ND	1.0	
Perfluorooctanesulfonic acid (PFOS)[3]	ND	1.0	
Perfluorodecanesulfonic acid (PFDS)	ND	1.0	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	ND	1.0	
Perfluoroheptanoic acid (PFHpA)	ND	1.0	
Perfluorooctanoic acid (PFOA)	ND	1.0	
Perfluorononanoic acid (PFNA)	ND	1.0	
Perfluorodecanoic acid (PFDA)	ND	1.0	
Perfluoroundecanoic acid (PFUnA)	ND	2.0	
Perfluorododecanoic acid (PFDoA)	ND	1.0	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	ND	1.0	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	4.0	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	4.0	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	ND	2.0	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	ND	4.0	

Footnotes:

[1] The analytes listed represent the linear isomer

[2] The results are calculated using the average weight of samples in this batch

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting

ND: Not Detected

Lab Analyst: CFH/SW Data Analyst: CFH Authorised: GF

THIS REPORT MUST ONLY BE REPRODUCED IN ITS ENTIRETY

0021

CHAIN OF CUSTODY

GOLDER ASSOCIATES PTY LTD
Building 7, Botanica Corporate Park
570-588 Swan Street
RICHMOND
Tel: (03) 8862 3500
Fax: (03) 8862 3501

Golder Job Number: 117613201
Job Location: F - VIC
Laboratory Issued To: MGT
Order No.: GA-MEL 332510
Sampled By (Golder): Niamh McCormack
Golder Job Contact: Niamh McCormack
Golder Contact Email: [redacted]

# OBSERV - ATIONS	SAMPLE DATE	SAMPLE NUMBER TAAXXX/MQNN	SAMPLE TYPE	SAMPLE DEPTH (m)	No. OF CONTAINERS	TPH	BTEX	Metals	PAH	Phenols	VOC (full & unknown scan)	SVOC (full & unknown scan)	Pesticides (OC & OP)	PCBs	Perchlorates	PFOS/PFOA	Dioxins/Furans	TOC
C & HOC	8/02/2012	10110/8910	Sediment	N/A	2	x	x	x	x	x	x	x	x	x	x	x	x	x
C & HOC	8/02/2012	1016/6906	Surface Water	N/A	6	x	x	x	x	x	x	x	x	x	x	x		

Special Instructions:

TURN AROUND TIME REQUIRED

☐ 1 Working Day ☐ 2 Working Days ☐ 3 Working Days ☐ 4 Working Days ☒ 5 Working Days (standard) ☐ Other

SAMPLE RECEIPT

Relinquished by: Niamh McCormack Date: 9/02/2012
Organisation: Golder Associates Time: 4.3
Recieved by: R McCallander Date: 10/2/12
Organisation: mgt LabMark Time: 10:11

ANALYTICAL SCHEDULE

Relinquished by: Niamh McCormack Date: 9/02/2012
Organisation: Golder Associates Time:
Received by: Date:
Organisation: Time:

RECEIVING LABORATORY TO CONFIRM RECEIPT OF ANALYTICAL SCHEDULE BY RETURN FAX TO : (03) 8862 3501

DELIVERED BY:
COURIER/LAB x
GOLDER
RECEIVED BY: x
Email
HAND x

Security Sealed
Chilled
Frozen
Ambient

Observations to Assist Analysis and OH&S
C - Expected to be Highly Contaminated HS - Expected High Salinity S - Sheen

Original (white) - Laboratory
Duplicate (yellow) - Project File

Report # 326794 Date:

mgt LabMark ENVIRONMENTAL LABORATORIES

e.mail: mgt@mgtenv.com.au Web site: www.mgtlabmark.com.au

Melbourne: 03 9564 7055
Sydney: 02 9476 6533
Adelaide: 08 8443 4430
Brisbane: 07 3902 4600
Perth: 08 9353 6535
Darwin: 08 8947 1557
Newcastle: 02 4965 4492

Golder Associates Pty Ltd

ANALYTICAL REPORT

mgt-LabMark REPORT No. a326794

On 10th February 2012 we received two samples from Golder Associates Pty Ltd and were requested to perform qualitative GCMS scans for Volatile and Semi-Volatile Organics to identify possible organic contaminants.

The samples requested for this analysis were identified as follows:-

10110/8910	–	M12-Fe06439
1016/6906	–	M12-Fe06440

Volatile Organics

A portion of each of the samples was extracted and analysed by Purge and Trap GCMS techniques.

A copy of the resultant chromatogram is attached (labelled VOC).

Using GCMS library search facilities, the major peaks in the chromatogram were selected in turn and their mass spectra were compared to the mass spectra in the library, resulting in tentative identification of each of the unknown peaks.

Please note that positive identification can only occur by running authentic standards, and gaining exact spectral and retention time matches.

Please note we have indicated below, only the most probable identity, based on “mass spectral matching.” In some cases the spectral match is low, because of spectral impurities associated with the sample matrix. It is important to understand that the identities provided are tentative only, and should be used to provide an indication of the class of compound present, rather than an exact identity.

10110/8910 – M12-Fe06439

Peak 1	1,3,5-trimethylbenzene
Peak 2	5-ethyl-2,2,3-trimethylheptane
Peak 3	6-methyl-tridecane
Peak 4	2,6,10-trimethyl-dodecane
Peak 5	1-methyl-4-(1-methylethyl)-benzene
Peak 6	4-ethenyl-1,2-dimethyl-benzene
Peak 7	1,2,3,4-tetramethyl-benzene
Peak 8	Pentamethylbenzene
Peak 9	2,4-dimethyl-1-(1-methylpropyl)-benzene
Peak 10	9-Methyltricyclo[4.2.1.1(2,5)]deca-3,7-diene-9,10-diol

1016/6906 – M12-Fe06440

Peak 1	Ethanal
Peak 2	Cyclopropyl Carbinol
Peak 3	Trimethylene oxide/Acetone (matrix)
Peak 4	Cyclohexane
Peak 5	Hexanal
Peak 6	Total m+p Xylenes
Peak 7	1,3,5-trimethylbenzene
Peak 8	1,2,4-trimethylbenzene
Peak 9	1-methyl-3-(1-methylethyl)-benzene
Peak 10	1,3,8-p-Menthatriene

Please note some of the unidentified peaks relate to standard VOC surrogates and internal standards.

Semi-Volatile Organics

A portion of each of the samples was extracted and analysed by a Gas Chromatograph coupled to a Mass Spectrometer detector.

A copy of the resultant chromatogram is attached (labelled SVOC).

Using GCMS library search facilities, the major peaks in the chromatogram were selected in turn and their mass spectra were compared to the mass spectra in the library, resulting in tentative identification of each of the unknown peaks.

Please note that positive identification can only occur by running authentic standards, and gaining exact spectral and retention time matches.

Please note we have indicated below, only the most probable identity, based on "mass spectral matching." In some cases the spectral match is low, because of spectral impurities associated with the sample matrix. It is important to understand that the identities provided are tentative only, and should be used to provide an indication of the class of compound present, rather than an exact identity.

10110/8910 – M12-Fe06439

Peak 1	Hexane, 2,4-dimethyl-
Peak 2	Nonane, 2-methyl-
Peak 3	Nonane, 3-methyl-
Peak 4	Glycocyanidine
Peak 5	2H-Pyran-2-one, tetrahydro-6-propyl-
Peak 6	Octane, 3,5-dimethyl-
Peak 7	1-Octanol, 2-butyl-
Peak 8	Butane, 2-iodo-2-methyl-
Peak 9	Hydroxylamine, O-decyl-
Peak 10	2-Hexyl-1-decanol
Peak 11	1-Octanol, 2-butyl-
Peak 12	Undecane, 5,6-dimethyl-
Peak 13	Decane, 4-methyl-
Peak 14	Decane, 2,6,7-trimethyl-
Peak 15	Decane, 3-methyl-
Peak 16	Benzene, 1-ethyl-2,4-dimethyl-
Peak 17	Benzene, 1-ethyl-2,3-dimethyl-
Peak 18	Nonane, 3,7-dimethyl-
Peak 19	Dodecane, 4,6-dimethyl-
Peak 20	Dodecane, 2,6,11-trimethyl-
Peak 21	Dodecane
Peak 22	Tridecane, 5-propyl-
Peak 23	Pentadecane, 2,6,10,14-tetramethyl
Peak 24	Pentadecane
Peak 25	Octadecane
Peak 26	Docosane
Peak 27	Hexadecane
Peak 28	Hexadecane, 2,6,10,14-tetramethyl-

1016/6906 – M12-Fe06440

Peak 1	1-Hexene, 4,5-dimethyl-
Peak 2	Benzene, 1,2,3,4-tetramethyl-
Peak 3	1-Heptatriacotanol
Peak 4	6,9,12,15-Docosatetraenoic acid, methyl ester
Peak 5	Phorbol
Peak 6	Dodecanoic acid, tetradecyl ester
Peak 7	Tetradecanoic acid, tetradecyl ester
Peak 8	Tetradecanoic acid, tetradecyl ester
Peak 9	Tetradecanoic acid, tetradecyl ester
Peak 10	Tetradecanoic acid, hexadecyl ester
Peak 11	Hexadecanoic acid, hexadecyl ester
Peak 12	Hexadecanoic acid, hexadecyl ester

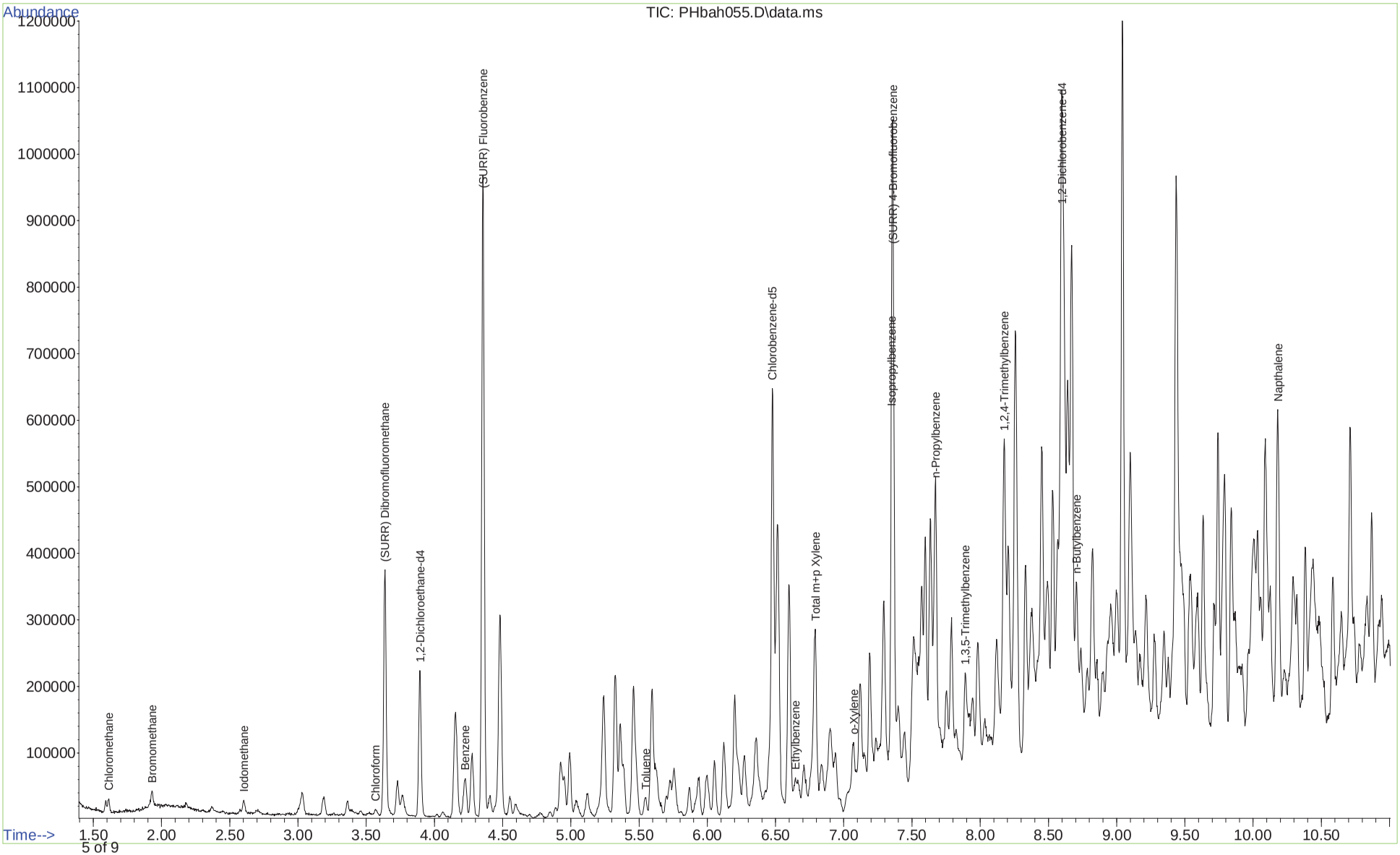
Please note some of the unidentified peaks relate to standard SVOC surrogates and internal standards.

Onur Mehmet

21 February 2012

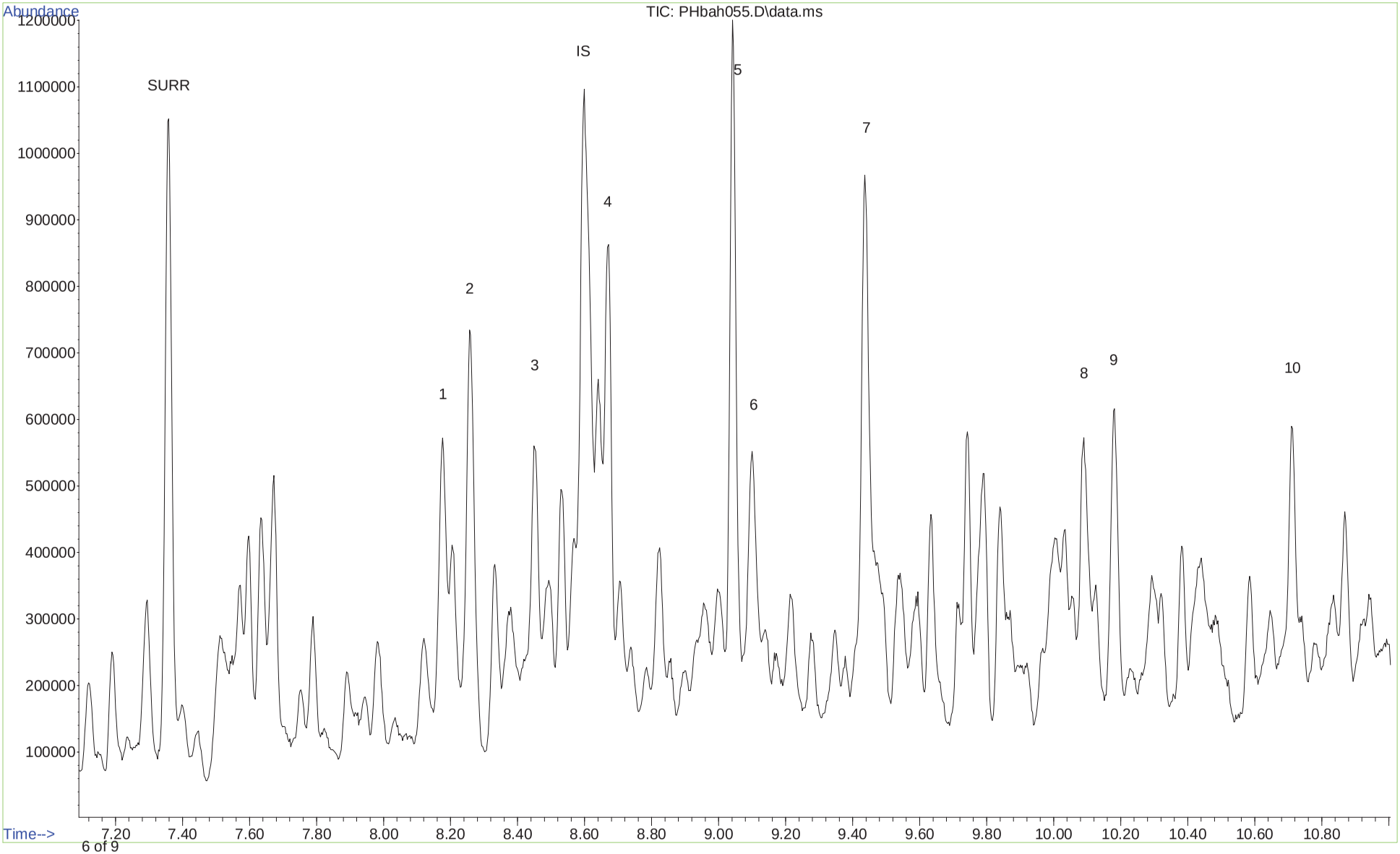
File :S:\msdchem\1\DATA\PHbah\PHbah055.D
Operator : JE
Acquired : 15 Feb 2012 14:28 using AcqMethod QUICK_8260.M
Instrument : PH-PTGCMS
Sample Name: fe06439 10/400
Misc Info :
Vial Number: 3

VOC



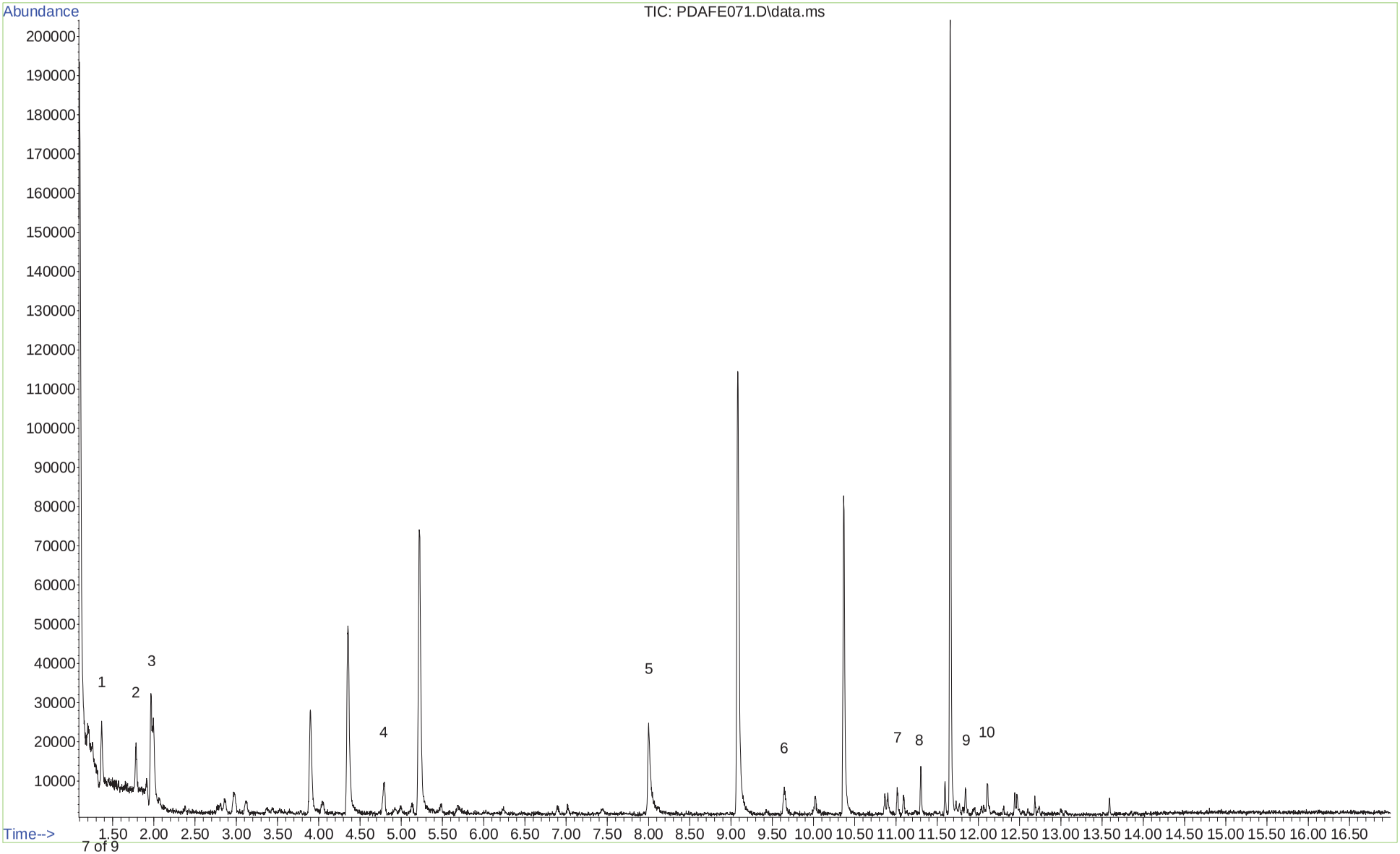
File :S:\msdchem\1\DATA\PHbah\PHbah055.D
Operator : JE
Acquired : 15 Feb 2012 14:28 using AcqMethod QUICK_8260.M
Instrument : PH-PTGCMS
Sample Name: fe06439 10/400
Misc Info :
Vial Number: 3

VOC - Expanded View



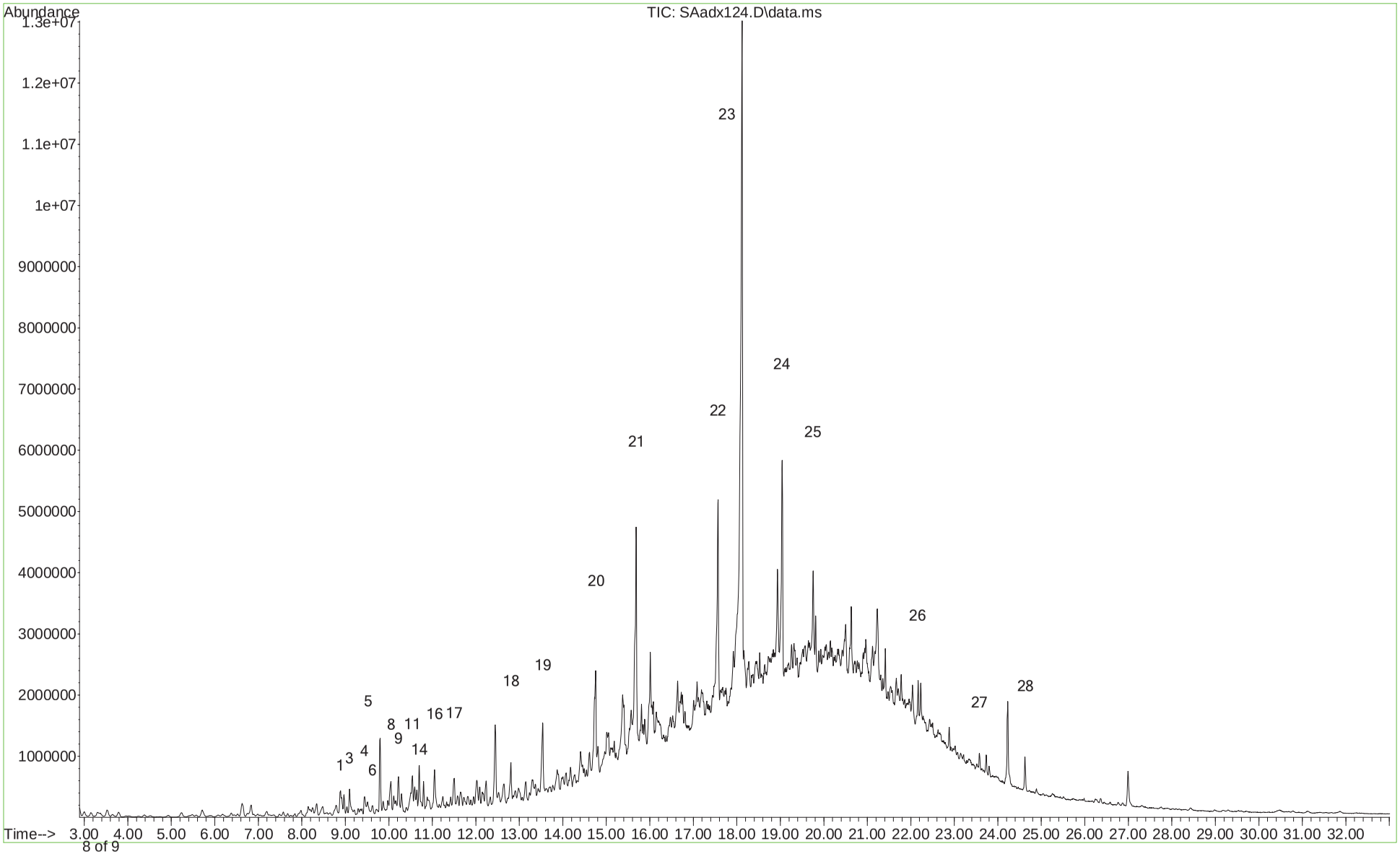
File :X:\msdchem\1\DATA\PDAFE\PDAFE071.D
Operator : KC
Acquired : 14 Feb 2012 16:40 using AcqMethod MGT8260.M
Instrument : PD-A4PTGCMS
Sample Name: fe06440w
Misc Info :
Vial Number: 4

VOC



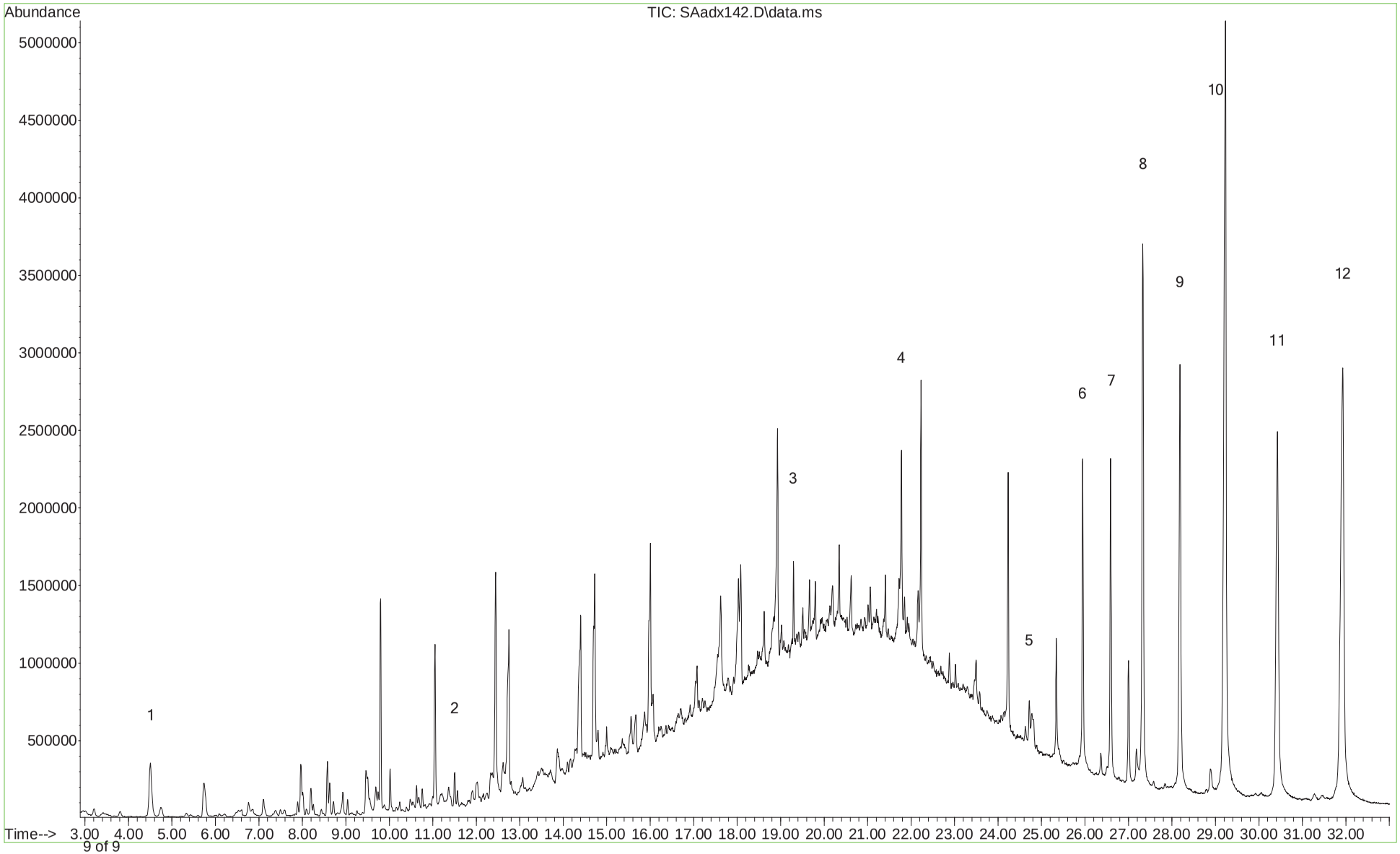
File :D:\msdchem\1\DATA\SAadx\SAadx124.D
Operator : aw
Acquired : 13 Feb 2012 21:06 using AcqMethod A38270.M
Instrument : AGMS1
Sample Name: fe06439
Misc Info :
Vial Number: 24

SVOC



File :D:\msdchem\1\DATA\SAadx\SAadx142.D
Operator : aw
Acquired : 14 Feb 2012 15:28 using AcqMethod A38270.M
Instrument : AGMS1
Sample Name: fe06440 400/2
Misc Info :
Vial Number: 42

SVOC



LEEDER
CONSULTING

A.B.N. 540 864 910 09
4 - 5, 18 Redland Drive
Mitcham, Vic, 3132
Telephone: (03) 9874 1988
Fax: (03) 9874 1933

Chartered Chemists

20-Feb-2012

REPORT NUMBER: M120257

Site/Client Ref: 326794

Order No: 12/091

MGT-LabMark

3 Kingston Town Close
Oakleigh
VIC 3166
Attention: Adrian Tabacchiera

CERTIFICATE OF ANALYSIS

SAMPLES:	Two samples were received for analysis
DATE RECEIVED:	**13-Feb-2012**
DATE COMMENCED:	**13-Feb-2012**
METHODS:	See Attached Results
RESULTS:	Please refer to attached pages for results.

Note: Results are based on samples as received at Leeder Consulting's laboratories

REPORTED BY:

Adam Atkinson
Laboratory Manager

This report has been prepared in accordance with the quality system of Leeder Consulting Pty. Ltd and may not be reproduced except in full.

LEEDER CONSULTING

(I) RESULTS

Report N°: M120257

Matrix: Soil

Method: MA-1548.SL.01

Sample units are expressed in mg/kg on a dry weight basis unless otherwise stated

	Leeder ID	2012002434	2012002435	2012002436
	Client ID	FE-06439	FE-06439	Method
Analyte Name	**PQL**		Duplicate	Blank
Perchlorate	0.01	nd	nd	nd

Matrix: Water

Method: MA-1548.WW.01

Sample units are expressed in mg/L

	Leeder ID	2012002437	2012002438	2012002439
	Client ID	FE-06440	FE-06440	Method
Analyte Name	**PQL**		Duplicate	Blank
Perchlorate	0.001	nd	nd	nd

LEEDER CONSULTING

(II) QUALITY CONTROL

Report N°: M120257

Matrix: Soil

Method: MA-1548.SL.01

Quality Control Results are expressed in Percent Recovery of expected result

	Leeder ID	2012002440	2012002441
	Client ID	FE-06439	FE-06439
Analyte Name	PQL	Spike	Spike Dup
Perchlorate		99	118

Matrix: Water

Method: MA-1548.WW.01

Quality Control Results are expressed in Percent Recovery of expected result

	Leeder ID	2012002442	2012002443
	Client ID	FE-06440	FE-06440
Analyte Name	PQL	Spike	Spike Dup
Perchlorate		96	97

Report N°: M120257

QUALIFIERS / NOTES FOR REPORTED RESULTS

PQL	Practical Quantitation Limit
is	Insufficient Sample to perform this analysis.
T	Tentative identification based on computer library search of mass spectra.
ND	Not Detected – The analyte was not detected above the reported PQL.
NC	Not calculated, Results below PQL
nr	Not Requested for analysis.
R	Rejected Result – results for this analysis failed QC checks.
SQ	Semi-Quantitative result – quantitation based on a generic response factor for this class of analyte.
IM	Inappropriate method of analysis for this compound
U	Unable to provide Quality Control data – high levels of compounds in sample interfered with analysis of QC results.
UF	Unable to provide Quality Control data- Surrogates failed QCchecks due to sample matrix effects
L	Analyte detected at a level above the linear response of calibration curve.
C1	These compounds co-elute.
C2	These compounds co-elute.
CT	Elevated concentration. Results reported from carbon tube analysis
**	Sample shows non-petroleum hydrocarbon profile

LEEDER
CONSULTING

APPENDIX ONE.

CHAIN OF CUSTODY DOCUMENT

☒ MELBOURNE
Ph: (03) 9564 7055
2-5 Kingston Town Close, Oakleigh, Vic. 3164
Email: enviro.melb@mgtlabmark.com.au

☐ BRISBANE
Ph: (07) 3902 4600
1/21 Smallwood Place Murarrie QLD 4172
Email: enviro.bris@mgtlabmark.com.au

☐ SYDNEY
Ph: (02) 8215 6222
Unit F3, 16 Mars Road, Lane Cove West NSW 2066
Email: enviro.syd@mgtlabmark.com.au

External Analysis Request

Please report results to: **mgt-LabMark Ref:** 326794 **Results Required:** STD TA **Page :** _____ of _____

Company Name: LEEDER CONSULTING **Client COC attached:** Yes ☐ No ☒ **Date:**

Address: **Client Job Ref:**

mgt-LabMark Contact: ADRIAN TABACCHIERA *(If applicable)*

Telephone: **Fax:** **mgt-LabMark PurchaseOrder:**

SAMPLE ID	MGT-LabMark ID	SAMPLE TYPE	TESTS REQUIRED	Rec. Lab ID
	FE-06439	SOIL	PERCHLORATE	
	FE-06440	WATER	PERCHLORATE	

Total No. Samples: _____ Comments: _____

Chain of Custody

Relinquished by: _____ Date/Time: _____

Received by: Lyndall Stevens Date/Time: 13/2/12

Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Sample Receipt Advice *(Receiving Lab Use Only)*

All Samples Received in Good Condition ☐ *Average sample temp on receipt: (°C)* _____

All Documentation in Proper Order ☐

Samples Received with an Attempt to Chill ☐ *For all enquires please quote Ref. No.* _____

Samples Received Within Holding Times ☐

Please complete this section and return to the MGT-LabMark laboratory indicated above

mgt LabMark
ENVIRONMENTAL LABORATORIES

Phone : (+61) 3 9564 7055
e.mail : enviro.melbourne@mgtlabmark.com.au

12/091 326794

PURCHASE ORDER

ABN 50 005 085 521

DATE: 10TH OF February

TO SUPPLIER: LEEDER CONSULTING
Unit 5, 18 Redland Drive
Mitcham
VIC 3132

DELIVERY TO: MGT Labmark
5 Kingston Town Close
Oakleigh, Vic 3166
Australia

Please provide the following items:

1 soil sample (Fe06439) for Perchlorate analysis.
1 water sample (Fe06440) for Perchlorate analysis

Authorised

Sefton McGraw
Technical Manager

RECEIVED
13 FEB 2012

mgt LabMark ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtenv.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Sample Receipt Advice

Company name: **Golder Associates Pty Ltd (Richmond)**

Contact name: Niamh McCormack
Client job number: F - VIC 117613201
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Feb 10, 2012
MGT lab reference: **326794**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Organic samples had Teflon liners.

☑ Sample containers for volatile analysis received with zero headspace.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

Adrian Tabacchiera on Phone : (03) 9564 7055 or by e.mail:
adrian.tabacchiera@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Niamh McCormack - nmccormack@golder.com.au.

mgt Sample Receipt

mgt LabMark
ENVIRONMENTAL LABORATORIES
ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Order No.:
Report #: 326794
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Feb 10, 2012 12:00 AM
Due: Feb 17, 2012 4:00 PM
Priority: 5 Day
Contact name: Niamh McCormack

Client Job No.: F - VIC 117613201

mgt-LabMark Client Manager: Adrian

Sample Detail					% Moisture	Dioxins & Furans	GC-MS Scan (Purge & Trap)	GC-MS Scan (Semivolatile)	Perchlorate*	PFOS/PFOA	Total Organic Carbon	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorous Pesticides	Polychlorinated Biphenyls	Semivolatile Organics	Volatile Organics	Metals M8	Metals M8 filtered	Phenols (IWRG 621)	mgt-LabMark Suite 1
Laboratory where analysis is conducted																					
Melbourne Laboratory - NATA Site #1261					X		X	X			X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site #1645																					
External Laboratory						X			X	X											
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
10110/8910	Feb 08, 2012		Soil	M12-Fe06439	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
1016/6906	Feb 08, 2012		Water	M12-Fe06440			X	X	X	X		X	X	X	X	X	X		X	X	X

mgt LabMark ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Golder Associates Pty Ltd
570-588 Swan Street
Richmond
VIC 3121

Attention: Niamh McCormack

NATA WORLD RECOGNISED ACCREDITATION

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Report	326794-S
Client Reference	F - VIC 117613201
Received Date	Feb 10, 2012

Client Sample ID			**10110/8910**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe06439**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
GC-MS Scan (Purge & Trap)	0		see attached
Dioxins & Furans			see attached
GC-MS Scan (Semivolatile)	0	mg/kg	see attached
PFOS/PFOA			see attached
Perchlorate*			see attached
Total Organic Carbon	50	mg/kg	52000
% Moisture	0.1	%	54
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	50
TRH C10-C14	20	mg/kg	1700
TRH C15-C28	50	mg/kg	8300
TRH C29-C36	50	mg/kg	850
TRH C10-36 (Total)	50	mg/kg	11000
BTEX			
Benzene	0.05	mg/kg	< 0.05
Toluene	0.05	mg/kg	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05
o-Xylene	0.05	mg/kg	< 0.05
Total m+p-Xylenes	0.10	mg/kg	0.54
Xylenes(ortho.meta and para)	0.15	mg/kg	0.62
Fluorobenzene (surr.)	1	%	71
Volatile Organics			
1.1-Dichloroethane	0.05	mg/kg	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	0.86
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	0.30
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05

Client Sample ID			**10110/8910**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe06439**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
2-Butanone (MEK)	0.05	mg/kg	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05
Bromoform	0.05	mg/kg	< 0.05
Bromomethane	0.05	mg/kg	0.22
Carbon disulfide	0.05	mg/kg	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05
Chloroethane	0.05	mg/kg	< 0.05
Chloroform	0.05	mg/kg	< 0.05
Chloromethane	0.05	mg/kg	0.26
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05
Iodomethane	0.05	mg/kg	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	0.12
Methylene Chloride	0.05	mg/kg	< 0.05
Styrene	0.05	mg/kg	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05
4-Bromofluorobenzene (surr.)	1	%	73
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene[N02]	0.5	mg/kg	1.3
TRH C6-C10	20	mg/kg	96
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	96
TRH >C10-C16	50	mg/kg	3100
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	3100
TRH >C16-C34	100	mg/kg	7200
TRH >C34-C40	100	mg/kg	400
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	1.0
Benz(a)anthracene	0.5	mg/kg	2.6
Benzo(a)pyrene	0.5	mg/kg	1.0
Benzo(b)fluoranthene	0.5	mg/kg	1.2
Benzo(g.h.i)perylene	0.5	mg/kg	1.9
Benzo(k)fluoranthene	0.5	mg/kg	1.3
Chrysene	0.5	mg/kg	1.6

Client Sample ID			10110/8910
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-Fe06439
Date Sampled			Feb 08, 2012
Test/Reference	LOR	Unit	
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	4.7
Fluorene	0.5	mg/kg	< 1
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.7
Naphthalene	0.5	mg/kg	1.8
Phenanthrene	0.5	mg/kg	2.6
Pyrene	0.5	mg/kg	9.6
Total PAH	0.5	mg/kg	31
p-Terphenyl-d14 (surr.)	1	%	114
2-Fluorobiphenyl (surr.)	1	%	89
Organochlorine Pesticides			
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
Chlordane	0.1	mg/kg	< 0.1
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	82
Tetrachloro-m-xylene (surr.)	1	%	71
Organophosphorous Pesticides			
Bolstar	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2

Client Sample ID			10110/8910
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-Fe06439
Date Sampled			Feb 08, 2012
Test/Reference	LOR	Unit	
Naled	0.5	mg/kg	< 0.5
Phorate	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	113
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB	0.1	mg/kg	< 0.1
Semivolatile Organics			
1-Chloronaphthalene	0.5	mg/kg	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5
2-Methylnaphthalene	0.5	mg/kg	2.3
2-Naphthylamine	0.5	mg/kg	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5
2-Picoline	0.5	mg/kg	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5
3-Methylcholanthrene	0.5	mg/kg	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5
4.4'-DDD	0.5	mg/kg	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5
a-BHC	0.5	mg/kg	< 0.5
Acetophenone	0.5	mg/kg	< 1
Aldrin	0.5	mg/kg	< 0.5
Aniline	0.5	mg/kg	< 0.5
b-BHC	0.5	mg/kg	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5

Client Sample ID			**10110/8910**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe06439**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	15
Butyl benzyl phthalate	0.5	mg/kg	< 0.5
d-BHC	0.5	mg/kg	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5
Dieldrin	0.5	mg/kg	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5
Endrin	0.5	mg/kg	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5
g-BHC (Lindane)	0.5	mg/kg	< 0.5
Heptachlor	0.5	mg/kg	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 1
N-Nitrosopiperidine	0.5	mg/kg	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5
Pronamide	0.5	mg/kg	< 0.5
Trifluralin	0.5	mg/kg	< 0.5
Nitrobenzene-d5 (surr.)	1	%	97
2.4.6-Tribromophenol (surr.)	1	%	97
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1
Pentachlorophenol	1.0	mg/kg	< 1
Tetrachlorophenols - Total	5.0	mg/kg	< 5
Total Halogenated Phenol	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20

Client Sample ID			**10110/8910**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe06439**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20
Phenol-d6 (surr.)	1	%	94
Heavy Metals			
Arsenic	2	mg/kg	4.1
Cadmium	0.4	mg/kg	1.0
Chromium	5	mg/kg	68
Copper	5	mg/kg	30
Lead	5	mg/kg	110
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	26
Zinc	5	mg/kg	330

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
GC-MS Scan (Purge & Trap)	Melbourne	Feb 11, 2012	14 Day
Total Organic Carbon	Melbourne	Feb 11, 2012	28 Day
- Method: APHA 5310B Total Organic Carbon			
% Moisture	Melbourne	Feb 11, 2012	14 Day
- Method: Method 102 - ANZECC - % Moisture			
Volatile Organics	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Polycyclic Aromatic Hydrocarbons	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons			
Organochlorine Pesticides	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8081 Organochlorine Pesticides			
Organophosphorous Pesticides	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8141 Organophosphorus Pesticides			
Polychlorinated Biphenyls	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8082 Polychlorinated Biphenyls			
Semivolatile Organics	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8270 Semivolatile Organics			
Metals M8	Melbourne	Feb 11, 2012	28 Day
- Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury			
mgt-LabMark Suite 1			
BTEX	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Feb 11, 2012	14 Day
- Method: TRH C6-C36 - MGT 100A			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *	Melbourne	Feb 13, 2012	14 Day
- Method: LM-LTM-ORG2010			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8270 Phenols			
Phenols (non-Halogenated)	Melbourne	Feb 11, 2012	14 Day
- Method: USEPA 8270 Phenols			

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

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

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

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

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Organic Carbon	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	< 0.05			0.05	Pass	
Toluene	mg/kg	< 0.05			0.05	Pass	
Ethylbenzene	mg/kg	< 0.05			0.05	Pass	
o-Xylene	mg/kg	< 0.05			0.05	Pass	
Total m+p-Xylenes	mg/kg	< 0.1			0.10	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 0.15			0.15	Pass	
Method Blank							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dibromoethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
2-Butanone (MEK)	mg/kg	< 0.05			0.05	Pass	
2-Propanone (Acetone)	mg/kg	< 0.05			0.05	Pass	
4-Chlorotoluene	mg/kg	< 0.05			0.05	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.05			0.05	Pass	
Allyl chloride	mg/kg	< 0.05			0.05	Pass	
Bromobenzene	mg/kg	< 0.05			0.05	Pass	
Bromochloromethane	mg/kg	< 0.05			0.05	Pass	
Bromodichloromethane	mg/kg	< 0.05			0.05	Pass	
Bromoform	mg/kg	< 0.05			0.05	Pass	
Bromomethane	mg/kg	< 0.05			0.05	Pass	
Carbon disulfide	mg/kg	< 0.05			0.05	Pass	
Carbon Tetrachloride	mg/kg	< 0.05			0.05	Pass	
Chlorobenzene	mg/kg	< 0.05			0.05	Pass	
Chloroethane	mg/kg	< 0.05			0.05	Pass	
Chloroform	mg/kg	< 0.05			0.05	Pass	
Chloromethane	mg/kg	< 0.05			0.05	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Dibromochloromethane	mg/kg	< 0.05			0.05	Pass	
Dibromomethane	mg/kg	< 0.05			0.05	Pass	
Dichlorodifluoromethane	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Iodomethane	mg/kg	< 0.05			0.05	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.05			0.05	Pass	
Methylene Chloride	mg/kg	< 0.05			0.05	Pass	
Styrene	mg/kg	< 0.05			0.05	Pass	
Tetrachloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Trichloroethene	mg/kg	< 0.05			0.05	Pass	
Trichlorofluoromethane	mg/kg	< 0.05			0.05	Pass	
Vinyl chloride	mg/kg	< 0.05			0.05	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl azinphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Naled	mg/kg	< 0.5			0.5	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 0.5			0.5	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
2.6-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 0.5			0.5	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-BHC	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
b-BHC	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-BHC	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-BHC (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 0.5			0.5	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 5			5.0	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	83			70-130	Pass	
TRH C10-C14	%	111			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	80			70-130	Pass	
Toluene	%	94			70-130	Pass	
Ethylbenzene	%	91			70-130	Pass	
Total m+p-Xylenes	%	82			70-130	Pass	
Xylenes(ortho.meta and para)	%	81			70-130	Pass	
LCS - % Recovery							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethene	%	77			70-130	Pass	
1.1.1-Trichloroethane	%	82			70-130	Pass	
1.2-Dichloroethane	%	83			70-130	Pass	
Carbon Tetrachloride	%	78			70-130	Pass	
Trichloroethene	%	81			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	83			70-130	Pass	
TRH >C10-C16	%	108			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	94			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	109			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	111			70-130	Pass	
Benzo(b)fluoranthene	%	100			70-130	Pass	
Benzo(g.h.i)perylene	%	105			70-130	Pass	
Benzo(k)fluoranthene	%	112			70-130	Pass	
Chrysene	%	101			70-130	Pass	
Dibenz(a.h)anthracene	%	116			70-130	Pass	
Fluoranthene	%	97			70-130	Pass	
Fluorene	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	116			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Naphthalene	%	102			70-130	Pass	
Phenanthrene	%	99			70-130	Pass	
Pyrene	%	103			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	84			70-130	Pass	
4.4'-DDE	%	86			70-130	Pass	
4.4'-DDT	%	77			70-130	Pass	
a-BHC	%	104			70-130	Pass	
Aldrin	%	89			70-130	Pass	
b-BHC	%	92			70-130	Pass	
d-BHC	%	102			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	88			70-130	Pass	
Endosulfan II	%	87			70-130	Pass	
Endosulfan sulphate	%	91			70-130	Pass	
Endrin	%	91			70-130	Pass	
Endrin aldehyde	%	86			70-130	Pass	
Endrin ketone	%	101			70-130	Pass	
g-BHC (Lindane)	%	102			70-130	Pass	
Heptachlor	%	98			70-130	Pass	
Heptachlor epoxide	%	89			70-130	Pass	
Hexachlorobenzene	%	102			70-130	Pass	
Methoxychlor	%	87			70-130	Pass	
LCS - % Recovery							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Diazinon	%	104			70-130	Pass	
Ethion	%	122			70-130	Pass	
Fenitrothion	%	126			70-130	Pass	
Methyl parathion	%	120			70-130	Pass	
Mevinphos	%	121			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	109			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1.2.4-Trichlorobenzene	%	94			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	%	108			30-130	Pass	
2.4-Dichlorophenol	%	104			30-130	Pass	
2.4.5-Trichlorophenol	%	114			30-130	Pass	
2.4.6-Trichlorophenol	%	128			30-130	Pass	
2.6-Dichlorophenol	%	101			30-130	Pass	
4-Chloro-3-methylphenol	%	81			30-130	Pass	
Pentachlorophenol	%	42			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	%	79			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	100			30-130	Pass	
2-Methylphenol (o-Cresol)	%	103			30-130	Pass	
2-Nitrophenol	%	103			30-130	Pass	
2.4-Dimethylphenol	%	113			30-130	Pass	
2.4-Dinitrophenol	%	94			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	97			30-130	Pass	
4-Nitrophenol	%	94			30-130	Pass	
Phenol	%	102			30-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	%	94			80-120	Pass	
Cadmium	%	92			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	95			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	95			75-125	Pass	
Nickel	%	96			80-120	Pass	
Zinc	%	98			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M12-Fe07556	NCP	%	90			70-130	Pass	
TRH C10-C14	M12-Fe06439	CP	%	120			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M12-Fe07556	NCP	%	87			70-130	Pass	
Toluene	M12-Fe07556	NCP	%	95			70-130	Pass	
Ethylbenzene	M12-Fe07556	NCP	%	96			70-130	Pass	
o-Xylene	M12-Fe07556	NCP	%	81			70-130	Pass	
Total m+p-Xylenes	M12-Fe07556	NCP	%	85			70-130	Pass	
Xylenes(ortho.meta and para)	M12-Fe07556	NCP	%	84			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M12-Fe07556	NCP	%	84			70-130	Pass	
1.1.1-Trichloroethane	M12-Fe07556	NCP	%	86			70-130	Pass	
1.2-Dichlorobenzene	M12-Fe07556	NCP	%	92			70-130	Pass	
1.2-Dichloroethane	M12-Fe07556	NCP	%	86			70-130	Pass	
Carbon Tetrachloride	M12-Fe07556	NCP	%	82			70-130	Pass	
Trichloroethene	M12-Fe07556	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	M12-Fe07556	NCP	%	90			70-130	Pass	
TRH >C10-C16	M12-Fe06439	CP	%	118			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M12-Fe06439	CP	%	94			70-130	Pass	
Acenaphthylene	M12-Fe05158	NCP	%	104			70-130	Pass	
Anthracene	M12-Fe05158	NCP	%	105			70-130	Pass	
Benz(a)anthracene	M12-Fe05158	NCP	%	104			70-130	Pass	
Benzo(a)pyrene	M12-Fe05158	NCP	%	107			70-130	Pass	
Benzo(b)fluoranthene	M12-Fe05158	NCP	%	106			70-130	Pass	
Benzo(g.h.i)perylene	M12-Fe05158	NCP	%	100			70-130	Pass	
Benzo(k)fluoranthene	M12-Fe05158	NCP	%	101			70-130	Pass	
Chrysene	M12-Fe05158	NCP	%	97			70-130	Pass	
Dibenz(a.h)anthracene	M12-Fe05158	NCP	%	114			70-130	Pass	
Fluoranthene	M12-Fe05158	NCP	%	105			70-130	Pass	
Fluorene	M12-Fe05158	NCP	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M12-Fe05158	NCP	%	111			70-130	Pass	
Naphthalene	M12-Fe05158	NCP	%	99			70-130	Pass	
Phenanthrene	M12-Fe05158	NCP	%	97			70-130	Pass	
Pyrene	M12-Fe06439	CP	%	93			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M12-Fe06090	NCP	%	75			70-130	Pass	
4.4'-DDE	M12-Fe06090	NCP	%	74			70-130	Pass	
4.4'-DDT	M12-Fe06090	NCP	%	70			70-130	Pass	
a-BHC	M12-Fe06090	NCP	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aldrin	M12-Fe06090	NCP	%	76			70-130	Pass	
b-BHC	M12-Fe06090	NCP	%	78			70-130	Pass	
d-BHC	M12-Fe06090	NCP	%	88			70-130	Pass	
Dieldrin	M12-Fe06090	NCP	%	75			70-130	Pass	
Endosulfan I	M12-Fe06090	NCP	%	77			70-130	Pass	
Endosulfan II	M12-Fe06090	NCP	%	70			70-130	Pass	
Endosulfan sulphate	M12-Fe06090	NCP	%	71			70-130	Pass	
Endrin	M12-Fe06090	NCP	%	82			70-130	Pass	
Endrin aldehyde	M12-Fe06090	NCP	%	73			70-130	Pass	
Endrin ketone	M12-Fe06090	NCP	%	86			70-130	Pass	
g-BHC (Lindane)	M12-Fe06090	NCP	%	87			70-130	Pass	
Heptachlor	M12-Fe06090	NCP	%	88			70-130	Pass	
Heptachlor epoxide	M12-Fe06090	NCP	%	75			70-130	Pass	
Hexachlorobenzene	M12-Fe06090	NCP	%	89			70-130	Pass	
Methoxychlor	M12-Fe06090	NCP	%	107			70-130	Pass	
Spike - % Recovery									
Organophosphorous Pesticides				Result 1					
Diazinon	M12-Fe05465	NCP	%	119			70-130	Pass	
Ethion	M12-Fe05465	NCP	%	127			70-130	Pass	
Fenitrothion	M12-Fe05465	NCP	%	120			70-130	Pass	
Methyl parathion	M12-Fe05465	NCP	%	130			70-130	Pass	
Mevinphos	M12-Fe05465	NCP	%	129			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M12-Fe09889	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2.4-Dinitrotoluene	N12-Fe04622	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M12-Fe06439	CP	%	84			30-130	Pass	
2.4-Dichlorophenol	M12-Fe05158	NCP	%	86			30-130	Pass	
2.4.5-Trichlorophenol	M12-Fe05158	NCP	%	76			30-130	Pass	
2.4.6-Trichlorophenol	M12-Fe05158	NCP	%	122			30-130	Pass	
2.6-Dichlorophenol	M12-Fe05158	NCP	%	98			30-130	Pass	
4-Chloro-3-methylphenol	M12-Fe06439	CP	%	84			30-130	Pass	
Pentachlorophenol	M12-Fe06439	CP	%	57			30-130	Pass	
Tetrachlorophenols - Total	M12-Fe05158	NCP	%	78			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	M12-Fe05158	NCP	%	65			30-130	Pass	
2-Methyl-4.6-dinitrophenol	M12-Fe05158	NCP	%	61			30-130	Pass	
2-Methylphenol (o-Cresol)	M12-Fe05158	NCP	%	90			30-130	Pass	
2-Nitrophenol	M12-Fe05158	NCP	%	101			30-130	Pass	
2.4-Dimethylphenol	M12-Fe05158	NCP	%	108			30-130	Pass	
2.4-Dinitrophenol	M12-Fe05158	NCP	%	71			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M12-Fe05158	NCP	%	80			30-130	Pass	
Dinoseb	M12-Fe05158	NCP	%	82			30-130	Pass	
Phenol	M12-Fe06439	CP	%	93			30-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	M12-Fe06474	NCP	%	79			75-125	Pass	
Cadmium	M12-Fe06439	CP	%	80			75-125	Pass	
Chromium	M12-Fe06271	NCP	%	84			75-125	Pass	
Copper	M12-Fe06439	CP	%	92			75-125	Pass	
Lead	M12-Fe06439	CP	%	111			75-125	Pass	
Mercury	M12-Fe06439	CP	%	89			70-130	Pass	
Nickel	M12-Fe06439	CP	%	86			75-125	Pass	
Zinc	M12-Fe06474	NCP	%	113			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	M12-Fe04777	NCP	mg/kg	5600	5900	6.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M12-Fe07556	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M12-Fe06439	CP	mg/kg	1700	1600	7.2	30%	Pass	
TRH C15-C28	M12-Fe06439	CP	mg/kg	8300	7800	6.7	30%	Pass	
TRH C29-C36	M12-Fe06439	CP	mg/kg	850	660	26	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toluene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Ethylbenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
o-Xylene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Total m+p-Xylenes	M12-Fe07556	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes(ortho.meta and para)	M12-Fe07556	NCP	mg/kg	< 0.15	< 0.15	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1-Dichloroethene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1-Trichloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2-Trichloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dibromoethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloropropane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.3-Trichloropropane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.4-Trimethylbenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichloropropane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3.5-Trimethylbenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Butanone (MEK)	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Propanone (Acetone)	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Chlorotoluene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Allyl chloride	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromobenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromochloromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromodichloromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromoform	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromomethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon disulfide	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon Tetrachloride	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlorobenzene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroform	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.2-Dichloroethene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.3-Dichloropropene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromochloromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromomethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dichlorodifluoromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Iodomethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Isopropyl benzene (Cumene)	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methylene Chloride	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Tetrachloroethene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.2-Dichloroethene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.3-Dichloropropene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichloroethene	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichlorofluoromethane	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Vinyl chloride	M12-Fe07556	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-Fe07556	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-Fe07556	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-Fe06439	CP	mg/kg	3100	2800	8.4	30%	Pass	
TRH >C16-C34	M12-Fe06439	CP	mg/kg	7200	6700	8.2	30%	Pass	
TRH >C34-C40	M12-Fe06439	CP	mg/kg	400	320	21	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M12-Fe06090	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Organophosphorous Pesticides				Result 1	Result 2	RPD			
Bolstar	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl azinphos	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Naled	M12-Fe05465	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	M12-Fe05465	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB	M12-Fe06090	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1-Chloronaphthalene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Naphthylamine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Picoline	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrotoluene	N12-Fe04622	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3-Methylcholanthrene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDD	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-BHC	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-BHC	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-BHC	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Diphenylamine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	N12-Fe04622	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	M12-Fe05416	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	M12-Fe06439	CP	mg/kg	4.1	8.0	65	30%	Fail	Q15
Cadmium	M12-Fe06439	CP	mg/kg	1.0	1.1	18	30%	Pass	
Chromium	M12-Fe06439	CP	mg/kg	68	71	4.0	30%	Pass	
Copper	M12-Fe06439	CP	mg/kg	30	30	1.0	30%	Pass	
Lead	M12-Fe06439	CP	mg/kg	110	98	15	30%	Pass	
Mercury	M12-Fe06439	CP	mg/kg	< 0.1	< 0.1	100	30%	Fail	Q15
Nickel	M12-Fe06439	CP	mg/kg	26	27	4.0	30%	Pass	
Zinc	M12-Fe06439	CP	mg/kg	330	340	4.0	30%	Pass	

Comments

Please note: Perchlorate analysed at Leeder. Report Reference M120257

Please note1: Dioxins & Furans analysed at AsureQuality. Report reference 107033

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Adrian Tabacchiera	Client Services
Carroll Lee	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Mary Makarios	Senior Analyst-Metal (VIC)
Orlando Scalzo	Senior Analyst-Organic (VIC)

Michael Wright
National Technical Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Golder Associates Pty Ltd
570-588 Swan Street
Richmond
VIC 3121

Attention: Niamh McCormack

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Report	326794-W
Client Reference	F - VIC 117613201
Received Date	Feb 10, 2012

Client Sample ID			**1016/6906**
Sample Matrix			**Water**
mgt-LabMark Sample No.			**M12-Fe06440**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
GC-MS Scan (Purge & Trap)	0	mg/L	see attached
GC-MS Scan (Semivolatile)	0	mg/L	see attached
PFOS/PFOA			see attached
Perchlorate*			see attached
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	0.02	mg/L	0.02
TRH C10-C14	0.05	mg/L	0.09
TRH C15-C28	0.1	mg/L	0.7
TRH C29-C36	0.1	mg/L	0.6
TRH C10-36 (Total)	0.1	mg/L	1.4
BTEX			
Benzene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
o-Xylene	0.001	mg/L	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003
Fluorobenzene (surr.)	1	%	76
Volatile Organics			
1.1-Dichloroethane	0.001	mg/L	< 0.001
1.1-Dichloroethene	0.001	mg/L	< 0.001
1.1.1-Trichloroethane	0.001	mg/L	< 0.001
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001
1.1.2-Trichloroethane	0.001	mg/L	< 0.001
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001
1.2-Dibromoethane	0.001	mg/L	< 0.001
1.2-Dichlorobenzene	0.001	mg/L	< 0.001
1.2-Dichloroethane	0.001	mg/L	< 0.001
1.2-Dichloropropane	0.001	mg/L	< 0.001
1.2.3-Trichloropropane	0.001	mg/L	< 0.001
1.2.4-Trimethylbenzene	0.001	mg/L	0.002
1.3-Dichlorobenzene	0.001	mg/L	< 0.001
1.3-Dichloropropane	0.001	mg/L	< 0.001
1.3.5-Trimethylbenzene	0.001	mg/L	0.001
1.4-Dichlorobenzene	0.001	mg/L	< 0.001
2-Butanone (MEK)	0.001	mg/L	< 0.001
2-Propanone (Acetone)	0.001	mg/L	< 0.015
4-Chlorotoluene	0.001	mg/L	< 0.001

Client Sample ID			1016/6906
Sample Matrix			Water
mgt-LabMark Sample No.			M12-Fe06440
Date Sampled			Feb 08, 2012
Test/Reference	LOR	Unit	
4-Methyl-2-pentanone (MIBK)	0.001	mg/L	< 0.001
Allyl chloride	0.001	mg/L	< 0.001
Bromobenzene	0.001	mg/L	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001
Bromoform	0.001	mg/L	< 0.001
Bromomethane	0.001	mg/L	< 0.001
Carbon disulfide	0.001	mg/L	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001
Chloroethane	0.001	mg/L	< 0.001
Chloroform	0.005	mg/L	< 0.005
Chloromethane	0.001	mg/L	< 0.001
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001
Dibromomethane	0.001	mg/L	< 0.001
Dichlorodifluoromethane	0.001	mg/L	< 0.001
Iodomethane	0.001	mg/L	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001
Methylene Chloride	0.001	mg/L	< 0.001
Styrene	0.001	mg/L	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001
Trichloroethene	0.001	mg/L	< 0.001
Trichlorofluoromethane	0.001	mg/L	< 0.001
Vinyl chloride	0.001	mg/L	< 0.001
4-Bromofluorobenzene (surr.)	1	%	85
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene[N02]	0.02	mg/L	< 0.02
TRH C6-C10	0.02	mg/L	0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	0.02
TRH >C10-C16	0.05	mg/L	0.20
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.2
TRH >C16-C34	0.1	mg/L	1.1
TRH >C34-C40	0.1	mg/L	0.1
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.001	mg/L	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001
Anthracene	0.001	mg/L	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001
Benzo(b)fluoranthene	0.001	mg/L	< 0.001
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001
Chrysene	0.001	mg/L	< 0.001
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001
Fluoranthene	0.001	mg/L	< 0.001
Fluorene	0.001	mg/L	< 0.001

Client Sample ID			1016/6906
Sample Matrix			Water
mgt-LabMark Sample No.			M12-Fe06440
Date Sampled			Feb 08, 2012
Test/Reference	LOR	Unit	
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001
Naphthalene	0.001	mg/L	< 0.001
Phenanthrene	0.001	mg/L	< 0.001
Pyrene	0.001	mg/L	< 0.002
Total PAH	0.001	mg/L	< 0.002
p-Terphenyl-d14 (surr.)	1	%	104
2-Fluorobiphenyl (surr.)	1	%	90
Organochlorine Pesticides			
4.4'-DDD	0.0001	mg/L	< 0.0005
4.4'-DDE	0.0001	mg/L	< 0.0005
4.4'-DDT	0.0001	mg/L	< 0.0005
a-BHC	0.0001	mg/L	< 0.0005
Aldrin	0.0001	mg/L	< 0.0005
b-BHC	0.0001	mg/L	< 0.0005
Chlordane	0.001	mg/L	< 0.005
d-BHC	0.0001	mg/L	< 0.0005
Dieldrin	0.0001	mg/L	< 0.0005
Endosulfan I	0.0001	mg/L	< 0.0005
Endosulfan II	0.0001	mg/L	< 0.0005
Endosulfan sulphate	0.0001	mg/L	< 0.0005
Endrin	0.0001	mg/L	< 0.0005
Endrin aldehyde	0.0001	mg/L	< 0.0005
Endrin ketone	0.0001	mg/L	< 0.0005
g-BHC (Lindane)	0.0001	mg/L	< 0.0005
Heptachlor	0.0001	mg/L	< 0.0005
Heptachlor epoxide	0.0001	mg/L	< 0.0005
Hexachlorobenzene	0.0001	mg/L	< 0.0005
Methoxychlor	0.0001	mg/L	< 0.0005
Toxaphene	0.001	mg/L	< 0.005
Dibutylchlorendate (surr.)	1	%	68
Tetrachloro-m-xylene (surr.)	1	%	58
Organophosphorous Pesticides			
Bolstar	0.002	mg/L	< 0.002
Chlorpyrifos	0.002	mg/L	< 0.002
Demeton-O	0.002	mg/L	< 0.002
Diazinon	0.002	mg/L	< 0.002
Dichlorvos	0.002	mg/L	< 0.002
Disulfoton	0.002	mg/L	< 0.002
Ethion	0.002	mg/L	< 0.002
Ethoprop	0.002	mg/L	< 0.002
Fenitrothion	0.002	mg/L	< 0.002
Fensulfothion	0.002	mg/L	< 0.002
Fenthion	0.002	mg/L	< 0.002
Merphos	0.002	mg/L	< 0.002
Methyl azinphos	0.002	mg/L	< 0.002
Methyl parathion	0.002	mg/L	< 0.002
Mevinphos	0.002	mg/L	< 0.002
Naled	0.002	mg/L	< 0.002
Phorate	0.002	mg/L	< 0.002
Ronnel	0.002	mg/L	< 0.002

Client Sample ID			1016/6906
Sample Matrix			Water
mgt-LabMark Sample No.			M12-Fe06440
Date Sampled			Feb 08, 2012
Test/Reference	LOR	Unit	
Tokuthion	0.002	mg/L	< 0.002
Trichloronate	0.002	mg/L	< 0.002
Triphenylphosphate (surr.)	1	%	94
Polychlorinated Biphenyls			
Aroclor-1016	0.001	mg/L	< 0.005
Aroclor-1221	0.001	mg/L	< 0.005
Aroclor-1232	0.001	mg/L	< 0.005
Aroclor-1242	0.001	mg/L	< 0.005
Aroclor-1248	0.001	mg/L	< 0.005
Aroclor-1254	0.001	mg/L	< 0.005
Aroclor-1260	0.001	mg/L	< 0.005
Total PCB	0.001	mg/L	< 0.005
Semivolatile Organics			
1-Chloronaphthalene	0.005	mg/L	< 0.005
1-Naphthylamine	0.005	mg/L	< 0.005
1.2-Dichlorobenzene	0.005	mg/L	< 0.005
1.2.3-Trichlorobenzene	0.005	mg/L	< 0.005
1.2.3.4-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.2.3.5-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005
1.2.4.5-Tetrachlorobenzene	0.005	mg/L	< 0.005
1.3-Dichlorobenzene	0.005	mg/L	< 0.005
1.3.5-Trichlorobenzene	0.005	mg/L	< 0.005
1.4-Dichlorobenzene	0.005	mg/L	< 0.005
2-Chloronaphthalene	0.005	mg/L	< 0.005
2-Methylnaphthalene	0.005	mg/L	< 0.005
2-Naphthylamine	0.005	mg/L	< 0.005
2-Nitroaniline	0.005	mg/L	< 0.005
2-Picoline	0.005	mg/L	< 0.005
2.3.4.6-Tetrachlorophenol	0.01	mg/L	< 0.01
2.4-Dinitrotoluene	0.005	mg/L	< 0.005
2.6-Dinitrotoluene	0.005	mg/L	< 0.005
3-Methylcholanthrene	0.005	mg/L	< 0.005
3.3'-Dichlorobenzidine	0.005	mg/L	< 0.005
4-Aminobiphenyl	0.005	mg/L	< 0.005
4-Bromophenyl phenyl ether	0.005	mg/L	< 0.005
4-Chlorophenyl phenyl ether	0.005	mg/L	< 0.005
4.4'-DDD	0.005	mg/L	< 0.005
4.4'-DDE	0.005	mg/L	< 0.005
4.4'-DDT	0.005	mg/L	< 0.005
7.12-Dimethylbenz(a)anthracene	0.005	mg/L	< 0.005
a-BHC	0.005	mg/L	< 0.005
Acetophenone	0.005	mg/L	< 0.005
Aldrin	0.005	mg/L	< 0.005
Aniline	0.005	mg/L	< 0.005
b-BHC	0.005	mg/L	< 0.005
Benzyl chloride	0.005	mg/L	< 0.005
Bis(2-chloroethoxy)methane	0.005	mg/L	< 0.005
Bis(2-chloroisopropyl)ether	0.005	mg/L	< 0.005
Bis(2-ethylhexyl)phthalate	0.005	mg/L	< 0.005

Client Sample ID			**1016/6906**
Sample Matrix			**Water**
mgt-LabMark Sample No.			**M12-Fe06440**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
Butyl benzyl phthalate	0.005	mg/L	< 0.005
d-BHC	0.005	mg/L	< 0.005
Di-n-butyl phthalate	0.005	mg/L	< 0.005
Di-n-octyl phthalate	0.005	mg/L	< 0.005
Dibenz(a.j)acridine	0.005	mg/L	< 0.005
Dibenzofuran	0.005	mg/L	< 0.005
Dieldrin	0.005	mg/L	< 0.005
Diethyl phthalate	0.005	mg/L	< 0.005
Dimethyl phthalate	0.005	mg/L	< 0.005
Dimethylaminoazobenzene	0.005	mg/L	< 0.005
Diphenylamine	0.005	mg/L	< 0.005
Endosulfan I	0.005	mg/L	< 0.005
Endosulfan II	0.005	mg/L	< 0.005
Endosulfan sulphate	0.005	mg/L	< 0.005
Endrin	0.005	mg/L	< 0.005
Endrin aldehyde	0.005	mg/L	< 0.005
Endrin ketone	0.005	mg/L	< 0.005
g-BHC (Lindane)	0.005	mg/L	< 0.005
Heptachlor	0.005	mg/L	< 0.005
Heptachlor epoxide	0.005	mg/L	< 0.005
Hexachlorobenzene	0.005	mg/L	< 0.005
Hexachlorobutadiene	0.005	mg/L	< 0.005
Hexachlorocyclopentadiene	0.005	mg/L	< 0.005
Hexachloroethane	0.005	mg/L	< 0.005
Methoxychlor	0.005	mg/L	< 0.005
N-Nitrosodibutylamine	0.005	mg/L	< 0.005
N-Nitrosodipropylamine	0.005	mg/L	< 0.005
N-Nitrosopiperidine	0.005	mg/L	< 0.005
Nitrobenzene	0.05	mg/L	< 0.05
Pentachlorobenzene	0.005	mg/L	< 0.005
Pentachloronitrobenzene	0.005	mg/L	< 0.005
Pronamide	0.005	mg/L	< 0.005
Trifluralin	0.005	mg/L	< 0.005
Nitrobenzene-d5 (surr.)	1	%	101
2.4.6-Tribromophenol (surr.)	1	%	114
Phenols (Halogenated)			
2-Chlorophenol	0.003	mg/L	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03
Total Halogenated Phenol	0.01	mg/L	< 0.01
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01

Client Sample ID			**1016/6906**
Sample Matrix			**Water**
mgt-LabMark Sample No.			**M12-Fe06440**
Date Sampled			**Feb 08, 2012**
Test/Reference	LOR	Unit	
2.4-Dimethylphenol	0.003	mg/L	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03
Dinoseb	0.1	mg/L	< 0.1
Phenol	0.003	mg/L	< 0.003
Total Non-Halogenated Phenol	0.1	mg/L	< 0.1
Phenol-d6 (surr.)	1	%	33
Heavy Metals			
Lead (filtered)	0.001	mg/L	< 0.001
Mercury (filtered)	0.0001	mg/L	< 0.0001
Nickel (filtered)	0.001	mg/L	0.003
Arsenic (filtered)	0.001	mg/L	0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001
Zinc (filtered)	0.001	mg/L	0.008

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
GC-MS Scan (Purge & Trap)	Melbourne	Feb 13, 2012	14 Day
Volatile Organics	Melbourne	Feb 13, 2012	14 Day
- Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS			
Polycyclic Aromatic Hydrocarbons	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons			
Organochlorine Pesticides	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8081 Organochlorine Pesticides			
Organophosphorous Pesticides	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8141 Organophosphorus Pesticides			
Polychlorinated Biphenyls	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8082 Polychlorinated Biphenyls			
Semivolatile Organics	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8270 Semivolatile Organics			
Metals M8 filtered	Melbourne	Feb 10, 2012	28 Day
- Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury			
mgt-LabMark Suite 1			
BTEX	Melbourne	Feb 13, 2012	14 Day
- Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Feb 13, 2012	7 Day
- Method: TRH C6-C36 - MGT 100A			
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *	Melbourne	Feb 13, 2012	7 Day
- Method: LM-LTM-ORG2010			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8270 Phenols			
Phenols (non-Halogenated)	Melbourne	Feb 13, 2012	7 Day
- Method: USEPA 8270 Phenols			

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

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

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

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

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

mgt LabMark
ENVIRONMENTAL LABORATORIES

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Total m+p-Xylenes	mg/L	< 0.002			0.002	Pass	
Xylenes(ortho.meta and para)	mg/L	< 0.003			0.003	Pass	
Method Blank							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.001			0.001	Pass	
2-Propanone (Acetone)	mg/L	< 0.001			0.001	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.001			0.001	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.001			0.001	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.001			0.001	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.001			0.001	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
Methylene Chloride	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	
Trichlorofluoromethane	mg/L	< 0.001			0.001	Pass	
Vinyl chloride	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
Chlordane	mg/L	< 0.001			0.001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Toxaphene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Bolstar	mg/L	< 0.002			0.002	Pass	
Chlorpyrifos	mg/L	< 0.002			0.002	Pass	
Demeton-O	mg/L	< 0.002			0.002	Pass	
Diazinon	mg/L	< 0.002			0.002	Pass	
Dichlorvos	mg/L	< 0.002			0.002	Pass	
Disulfoton	mg/L	< 0.002			0.002	Pass	
Ethion	mg/L	< 0.002			0.002	Pass	
Ethoprop	mg/L	< 0.002			0.002	Pass	
Fenitrothion	mg/L	< 0.002			0.002	Pass	
Fensulfothion	mg/L	< 0.002			0.002	Pass	
Fenthion	mg/L	< 0.002			0.002	Pass	
Merphos	mg/L	< 0.002			0.002	Pass	
Methyl azinphos	mg/L	< 0.002			0.002	Pass	
Methyl parathion	mg/L	< 0.002			0.002	Pass	
Mevinphos	mg/L	< 0.002			0.002	Pass	
Naled	mg/L	< 0.002			0.002	Pass	
Phorate	mg/L	< 0.002			0.002	Pass	
Ronnel	mg/L	< 0.002			0.002	Pass	
Tokuthion	mg/L	< 0.002			0.002	Pass	
Trichloronate	mg/L	< 0.002			0.002	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/L	< 0.001			0.001	Pass	
Aroclor-1221	mg/L	< 0.001			0.001	Pass	
Aroclor-1232	mg/L	< 0.001			0.001	Pass	
Aroclor-1242	mg/L	< 0.001			0.001	Pass	
Aroclor-1248	mg/L	< 0.001			0.001	Pass	
Aroclor-1254	mg/L	< 0.001			0.001	Pass	
Aroclor-1260	mg/L	< 0.001			0.001	Pass	
Total PCB	mg/L	< 0.001			0.001	Pass	
Method Blank							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
1-Naphthylamine	mg/L	< 0.005			0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.4-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.3.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.2.4.5-Tetrachlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.3.5-Trichlorobenzene	mg/L	< 0.005			0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005			0.005	Pass	
2-Chloronaphthalene	mg/L	< 0.005			0.005	Pass	
2-Methylnaphthalene	mg/L	< 0.005			0.005	Pass	
2-Naphthylamine	mg/L	< 0.005			0.005	Pass	
2-Nitroaniline	mg/L	< 0.005			0.005	Pass	
2-Picoline	mg/L	< 0.005			0.005	Pass	
2.3.4.6-Tetrachlorophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
2.6-Dinitrotoluene	mg/L	< 0.005			0.005	Pass	
3-Methylcholanthrene	mg/L	< 0.005			0.005	Pass	
3.3'-Dichlorobenzidine	mg/L	< 0.005			0.005	Pass	
4-Aminobiphenyl	mg/L	< 0.005			0.005	Pass	
4-Bromophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4-Chlorophenyl phenyl ether	mg/L	< 0.005			0.005	Pass	
4.4'-DDD	mg/L	< 0.005			0.005	Pass	
4.4'-DDE	mg/L	< 0.005			0.005	Pass	
4.4'-DDT	mg/L	< 0.005			0.005	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
7.12-Dimethylbenz(a)anthracene	mg/L	< 0.005			0.005	Pass	
a-BHC	mg/L	< 0.005			0.005	Pass	
Acetophenone	mg/L	< 0.005			0.005	Pass	
Aldrin	mg/L	< 0.005			0.005	Pass	
Aniline	mg/L	< 0.005			0.005	Pass	
b-BHC	mg/L	< 0.005			0.005	Pass	
Benzyl chloride	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroethoxy)methane	mg/L	< 0.005			0.005	Pass	
Bis(2-chloroisopropyl)ether	mg/L	< 0.005			0.005	Pass	
Bis(2-ethylhexyl)phthalate	mg/L	< 0.005			0.005	Pass	
Butyl benzyl phthalate	mg/L	< 0.005			0.005	Pass	
d-BHC	mg/L	< 0.005			0.005	Pass	
Di-n-butyl phthalate	mg/L	< 0.005			0.005	Pass	
Di-n-octyl phthalate	mg/L	< 0.005			0.005	Pass	
Dibenz(a.j)acridine	mg/L	< 0.005			0.005	Pass	
Dibenzofuran	mg/L	< 0.005			0.005	Pass	
Dieldrin	mg/L	< 0.005			0.005	Pass	
Diethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethyl phthalate	mg/L	< 0.005			0.005	Pass	
Dimethylaminoazobenzene	mg/L	< 0.005			0.005	Pass	
Diphenylamine	mg/L	< 0.005			0.005	Pass	
Endosulfan I	mg/L	< 0.005			0.005	Pass	
Endosulfan II	mg/L	< 0.005			0.005	Pass	
Endosulfan sulphate	mg/L	< 0.005			0.005	Pass	
Endrin	mg/L	< 0.005			0.005	Pass	
Endrin aldehyde	mg/L	< 0.005			0.005	Pass	
Endrin ketone	mg/L	< 0.005			0.005	Pass	
g-BHC (Lindane)	mg/L	< 0.005			0.005	Pass	
Heptachlor	mg/L	< 0.005			0.005	Pass	
Heptachlor epoxide	mg/L	< 0.005			0.005	Pass	
Hexachlorobenzene	mg/L	< 0.005			0.005	Pass	
Hexachlorobutadiene	mg/L	< 0.005			0.005	Pass	
Hexachlorocyclopentadiene	mg/L	< 0.005			0.005	Pass	
Hexachloroethane	mg/L	< 0.005			0.005	Pass	
Methoxychlor	mg/L	< 0.005			0.005	Pass	
N-Nitrosodibutylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosodipropylamine	mg/L	< 0.005			0.005	Pass	
N-Nitrosopiperidine	mg/L	< 0.005			0.005	Pass	
Nitrobenzene	mg/L	< 0.05			0.05	Pass	
Pentachlorobenzene	mg/L	< 0.005			0.005	Pass	
Pentachloronitrobenzene	mg/L	< 0.005			0.005	Pass	
Pronamide	mg/L	< 0.005			0.005	Pass	
Trifluralin	mg/L	< 0.005			0.005	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Metals M8 filtered USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.001			0.001	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	100			70-130	Pass	
TRH C10-C14	%	93			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	85			70-130	Pass	
Toluene	%	112			70-130	Pass	
Ethylbenzene	%	119			70-130	Pass	
Total m+p-Xylenes	%	117			70-130	Pass	
Xylenes(ortho.meta and para)	%	110			70-130	Pass	
LCS - % Recovery							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethene	%	117			70-130	Pass	
1.1.1-Trichloroethane	%	86			70-130	Pass	
1.2-Dichloroethane	%	109			70-130	Pass	
Carbon Tetrachloride	%	78			70-130	Pass	
Trichloroethene	%	76			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	100			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	82			70-130	Pass	
Pyrene	%	89			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	89			70-130	Pass	
4.4'-DDE	%	89			70-130	Pass	
4.4'-DDT	%	92			70-130	Pass	
a-BHC	%	97			70-130	Pass	
Aldrin	%	88			70-130	Pass	
b-BHC	%	94			70-130	Pass	
d-BHC	%	102			70-130	Pass	
Dieldrin	%	94			70-130	Pass	
Endosulfan I	%	90			70-130	Pass	
Endosulfan II	%	90			70-130	Pass	
Endosulfan sulphate	%	96			70-130	Pass	
Endrin	%	89			70-130	Pass	
Endrin aldehyde	%	78			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	%	106			70-130	Pass	
g-BHC (Lindane)	%	97			70-130	Pass	
Heptachlor	%	107			70-130	Pass	
Heptachlor epoxide	%	92			70-130	Pass	
Hexachlorobenzene	%	83			70-130	Pass	
Methoxychlor	%	121			70-130	Pass	
LCS - % Recovery							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Diazinon	%	101			70-130	Pass	
Ethion	%	114			70-130	Pass	
Fenitrothion	%	120			70-130	Pass	
Methyl parathion	%	121			70-130	Pass	
Mevinphos	%	124			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	109			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1.2.4-Trichlorobenzene	%	81			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	%	92			30-130	Pass	
4-Chloro-3-methylphenol	%	85			30-130	Pass	
Pentachlorophenol	%	50			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated) USEPA 8270 Phenols							
4-Nitrophenol	%	36			30-130	Pass	
Phenol	%	36			30-130	Pass	
LCS - % Recovery							
Metals M8 filtered USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Lead (filtered)	%	100			80-120	Pass	
Mercury (filtered)	%	91			70-130	Pass	
Nickel (filtered)	%	107			80-120	Pass	
Arsenic (filtered)	%	112			80-120	Pass	
Cadmium (filtered)	%	112			80-120	Pass	
Chromium (filtered)	%	112			80-120	Pass	
Copper (filtered)	%	95			80-120	Pass	
Zinc (filtered)	%	110			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	M12-Fe06341	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M12-Fe04446	NCP	%	79			70-130	Pass	
1.1.1-Trichloroethane	M12-Fe04446	NCP	%	76			70-130	Pass	
1.2-Dichlorobenzene	M12-Fe04446	NCP	%	88			70-130	Pass	
1.2-Dichloroethane	M12-Fe04446	NCP	%	75			70-130	Pass	
Trichloroethene	M12-Fe04446	NCP	%	80			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	M12-Fe04446	NCP	%	86			70-130	Pass	
TRH >C10-C16	M12-Fe06341	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M12-Fe05818	NCP	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M12-Fe05818	NCP	%	79			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	A12-Fe05860	NCP	%	115			70-130	Pass	
4.4'-DDE	A12-Fe05860	NCP	%	102			70-130	Pass	
4.4'-DDT	A12-Fe05860	NCP	%	123			70-130	Pass	
a-BHC	A12-Fe05860	NCP	%	107			70-130	Pass	
Aldrin	A12-Fe05860	NCP	%	100			70-130	Pass	
b-BHC	A12-Fe05860	NCP	%	111			70-130	Pass	
d-BHC	A12-Fe05860	NCP	%	117			70-130	Pass	
Dieldrin	A12-Fe05860	NCP	%	103			70-130	Pass	
Endosulfan I	A12-Fe05860	NCP	%	97			70-130	Pass	
Endosulfan II	A12-Fe05860	NCP	%	106			70-130	Pass	
Endosulfan sulphate	A12-Fe05860	NCP	%	123			70-130	Pass	
Endrin	A12-Fe05860	NCP	%	121			70-130	Pass	
Endrin aldehyde	A12-Fe05860	NCP	%	72			70-130	Pass	
Endrin ketone	A12-Fe05860	NCP	%	129			70-130	Pass	
g-BHC (Lindane)	A12-Fe05860	NCP	%	115			70-130	Pass	
Heptachlor	A12-Fe05860	NCP	%	125			70-130	Pass	
Heptachlor epoxide	A12-Fe05860	NCP	%	99			70-130	Pass	
Hexachlorobenzene	A12-Fe05860	NCP	%	103			70-130	Pass	
Methoxychlor	A12-Fe05860	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Organophosphorous Pesticides				Result 1					
Diazinon	M12-Fe05465	NCP	%	119			70-130	Pass	
Ethion	M12-Fe05465	NCP	%	127			70-130	Pass	
Fenitrothion	M12-Fe05465	NCP	%	120			70-130	Pass	
Methyl parathion	M12-Fe05465	NCP	%	130			70-130	Pass	
Mevinphos	M12-Fe05465	NCP	%	129			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M12-Fe06137	NCP	%	115			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
1.2.4-Trichlorobenzene	M12-Fe05818	NCP	%	77			70-130	Pass	
1.4-Dichlorobenzene	M12-Fe05818	NCP	%	76			70-130	Pass	
2.4-Dinitrotoluene	M12-Fe05818	NCP	%	81			70-130	Pass	
N-Nitrosodipropylamine	M12-Fe05818	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M12-Fe05818	NCP	%	83			30-130	Pass	
4-Chloro-3-methylphenol	M12-Fe05818	NCP	%	95			30-130	Pass	
Pentachlorophenol	M12-Fe05818	NCP	%	108			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
4-Nitrophenol	M12-Fe05818	NCP	%	60			30-130	Pass	
Phenol	M12-Fe05818	NCP	%	31			30-130	Pass	
Spike - % Recovery									
Metals M8 filtered				Result 1					
Lead (filtered)	M12-Fe06440	CP	%	91			75-125	Pass	
Mercury (filtered)	M12-Fe06742	NCP	%	77			70-130	Pass	
Nickel (filtered)	M12-Fe06440	CP	%	94			75-125	Pass	
Arsenic (filtered)	M12-Fe06440	CP	%	107			75-125	Pass	
Cadmium (filtered)	M12-Fe06440	CP	%	109			75-125	Pass	
Chromium (filtered)	M12-Fe06440	CP	%	100			75-125	Pass	
Copper (filtered)	M12-Fe06440	CP	%	90			75-125	Pass	
Zinc (filtered)	M12-Fe06440	CP	%	103			75-125	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	M12-Fe07187	NCP	mg/L	0.92	0.94	3.0	30%	Pass	
TRH C15-C28	M12-Fe07187	NCP	mg/L	0.10	0.10	16	30%	Pass	
TRH C29-C36	M12-Fe07187	NCP	mg/L	< 0.1	< 0.1	21	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
TRH >C10-C16	M12-Fe07187	NCP	mg/L	0.52	0.55	7.0	30%	Pass	
TRH >C16-C34	M12-Fe07187	NCP	mg/L	< 0.1	< 0.1	18	30%	Pass	
TRH >C34-C40	M12-Fe07187	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b)fluoranthene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	M12-Fe05813	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDE	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
4.4'-DDT	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
a-BHC	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Aldrin	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
b-BHC	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chlordane	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
d-BHC	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Dieldrin	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan I	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan II	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endosulfan sulphate	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin aldehyde	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Endrin ketone	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Heptachlor epoxide	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Hexachlorobenzene	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Methoxychlor	M12-Fe07233	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Toxaphene	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1221	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1232	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1242	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1248	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1254	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Aroclor-1260	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Total PCB	M12-Fe07233	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1-Chloronaphthalene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1-Naphthylamine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3-Trichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4-Trichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3.5-Trichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Chloronaphthalene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Methylnaphthalene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Naphthylamine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Nitroaniline	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Picoline	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dinitrotoluene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2.6-Dinitrotoluene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
3-Methylcholanthrene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
3.3'-Dichlorobenzidine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Aminobiphenyl	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Bromophenyl phenyl ether	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4.4'-DDD	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4.4'-DDE	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4.4'-DDT	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
a-BHC	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Acetophenone	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aldrin	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Aniline	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
b-BHC	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Benzyl chloride	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Butyl benzyl phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
d-BHC	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Di-n-butyl phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Di-n-octyl phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dibenz(a.j)acridine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dibenzofuran	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dieldrin	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Diethyl phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dimethyl phthalate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dimethylaminoazobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Diphenylamine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endosulfan I	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endosulfan II	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endosulfan sulphate	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin aldehyde	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Endrin ketone	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Heptachlor	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Heptachlor epoxide	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachlorobutadiene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachlorocyclopentadiene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Hexachloroethane	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Methoxychlor	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosodibutylamine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosodipropylamine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
N-Nitrosopiperidine	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Nitrobenzene	M12-Fe05813	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Pentachlorobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Pentachloronitrobenzene	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Pronamide	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Trifluralin	M12-Fe05813	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	M12-Fe05813	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M12-Fe05813	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M12-Fe05813	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	M12-Fe05813	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dimethylphenol	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	M12-Fe05813	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M12-Fe05813	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	M12-Fe05813	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	M12-Fe05813	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	M12-Fe05813	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Metals M8 filtered				Result 1	Result 2	RPD			
Lead (filtered)	M12-Fe06440	CP	mg/L	< 0.001	< 0.001	40	30%	Fail	Q15
Mercury (filtered)	M12-Fe06741	NCP	mg/L	< 0.0001	< 0.0001	100	30%	Fail	Q15
Nickel (filtered)	M12-Fe06440	CP	mg/L	0.003	0.003	<1	30%	Pass	
Arsenic (filtered)	M12-Fe06440	CP	mg/L	0.001	0.001	<1	30%	Pass	
Cadmium (filtered)	M12-Fe06440	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	M12-Fe06440	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	M12-Fe06440	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc (filtered)	M12-Fe06440	CP	mg/L	0.008	0.008	2.0	30%	Pass	

Comments

Please note: Perchlorate analysed at Leeder. Report Reference M120257

Please note1: PFOS/PFOA analysed at AsureQuality. Report reference: 107033

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Adrian Tabacchiera	Client Services
Carroll Lee	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Mary Makarios	Senior Analyst-Metal (VIC)
Orlando Scalzo	Senior Analyst-Organic (VIC)

Michael Wright
National Technical Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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

mgt LabMark ENVIRONMENTAL LABORATORIES

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Golder Associates Pty Ltd

ANALYTICAL REPORT

mgt-LabMark REPORT No. a327233

On 15th February 2012 we received a sample from Golder Associates Pty Ltd and were requested to perform qualitative GCMS scans for Volatile and Semi-Volatile Organics to identify possible organic contaminants.

The samples requested for this analysis were identified as follows:-

A7PT7/2801 – M12-Fe09279

Volatile Organics

A portion of the sample was extracted and analysed by Purge and Trap GCMS techniques. A copy of the resultant chromatogram is attached (labelled VOC).

Using GCMS library search facilities, the major peaks in the chromatogram were selected in turn and their mass spectra were compared to the mass spectra in the library, resulting in tentative identification of each of the unknown peaks.

Please note that positive identification can only occur by running authentic standards, and gaining exact spectral and retention time matches.

Please note we have indicated below, only the most probable identity, based on "mass spectral matching." In some cases the spectral match is low, because of spectral impurities associated with the sample matrix. It is important to understand that the identities provided are tentative only, and should be used to provide an indication of the class of compound present, rather than an exact identity.

A7PT7/2801 – M12-Fe09279

NIL peaks found

Please note all other unidentified peaks relate to standard VOC surrogates and internal standards.

Semi-Volatile Organics

A portion of the sample was extracted and analysed by a Gas Chromatograph coupled to a Mass Spectrometer detector. A copy of the resultant chromatogram is attached (labelled SVOC).

Using GCMS library search facilities, the major peaks in the chromatogram were selected in turn and their mass spectra were compared to the mass spectra in the library, resulting in tentative identification of each of the unknown peaks.

Please note that positive identification can only occur by running authentic standards, and gaining exact spectral and retention time matches.

Please note we have indicated below, only the most probable identity, based on "mass spectral matching." In some cases the spectral match is low, because of spectral impurities associated with the sample matrix. It is important to understand that the identities provided are tentative only, and should be used to provide an indication of the class of compound present, rather than an exact identity.

A7PT7/2801 – M12-Fe09279

Peak 1	Heptane, 2,4-dimethyl-
Peak 2	Cyclohexane, 1,2,3-trimethyl-
Peak 3	Heptane, 2,3-dimethyl-
Peak 4	Octane, 4-methyl-
Peak 5	Pentadecane
Peak 6	Octadecane
Peak 7	2-Pentene, 3-methyl-, (Z)-
Peak 8	Undecane, 5-methyl-
Peak 9	Undecane, 4,7-dimethyl-
Peak 10	Undecane, 4,7-dimethyl-
Peak 11	Hexane, 3,3-dimethyl-
Peak 12	Octanoic Acid
Peak 13	Decane, 2,3,7-trimethyl-
Peak 14	Pentane, 2-chloro-2-methyl-
Peak 15	Dodecane, 2,6,11-trimethyl-
Peak 16	Undecane, 2,7-dimethyl-
Peak 17	Decane, 2,3,7-trimethyl-
Peak 18	Decanoic acid
Peak 19	Nonadecane
Peak 20	10-Methylnonadecane
Peak 21	Dodecane, 3-methyl-
Peak 22	Thiocyanic acid, 2-benzothiazolylester
Peak 23	Cyclotrisiloxane, hexamethyl-

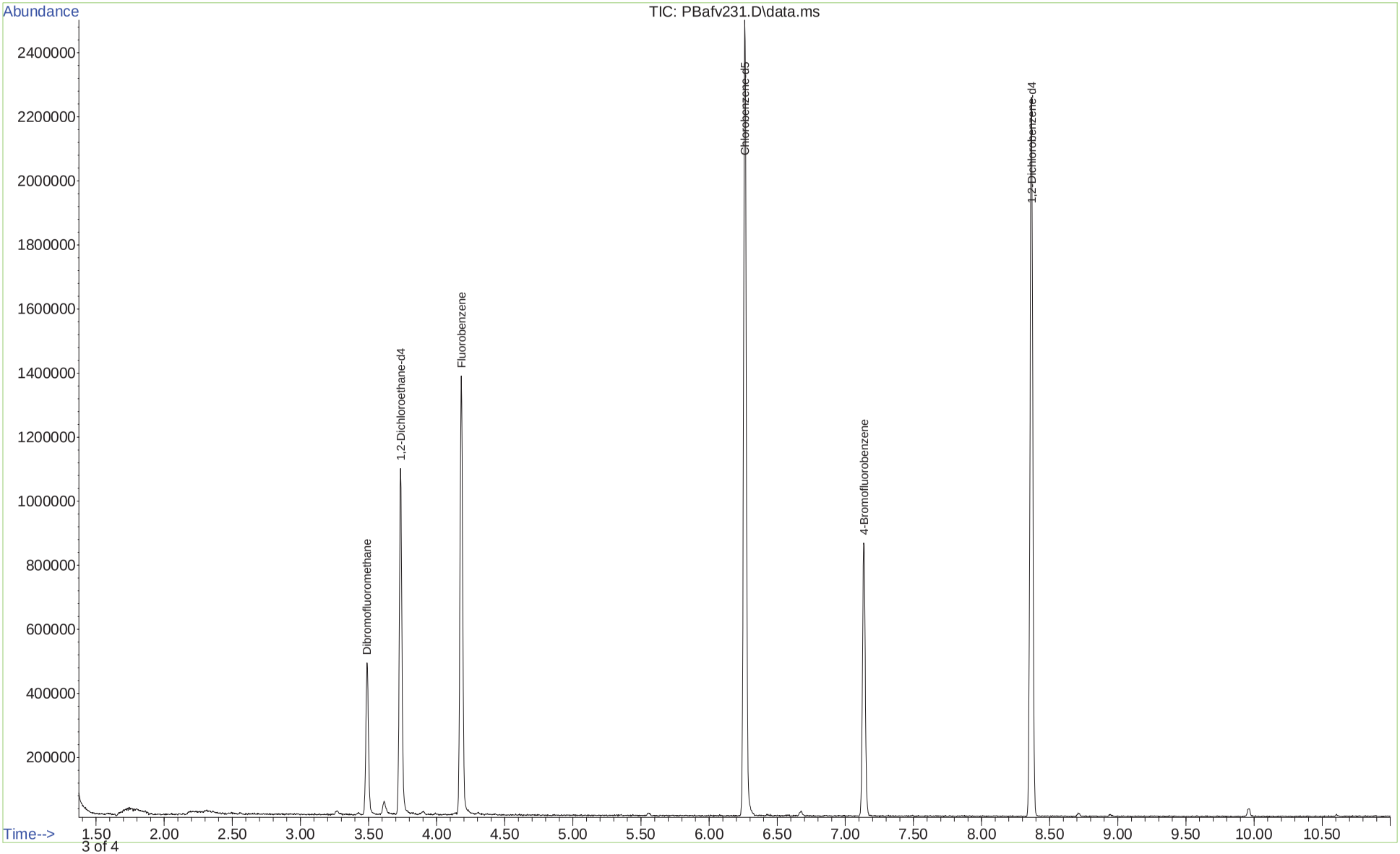
Please note some of the unidentified peaks relate to standard SVOC surrogates and internal standards.

Onur Mehmet

22 February 2012

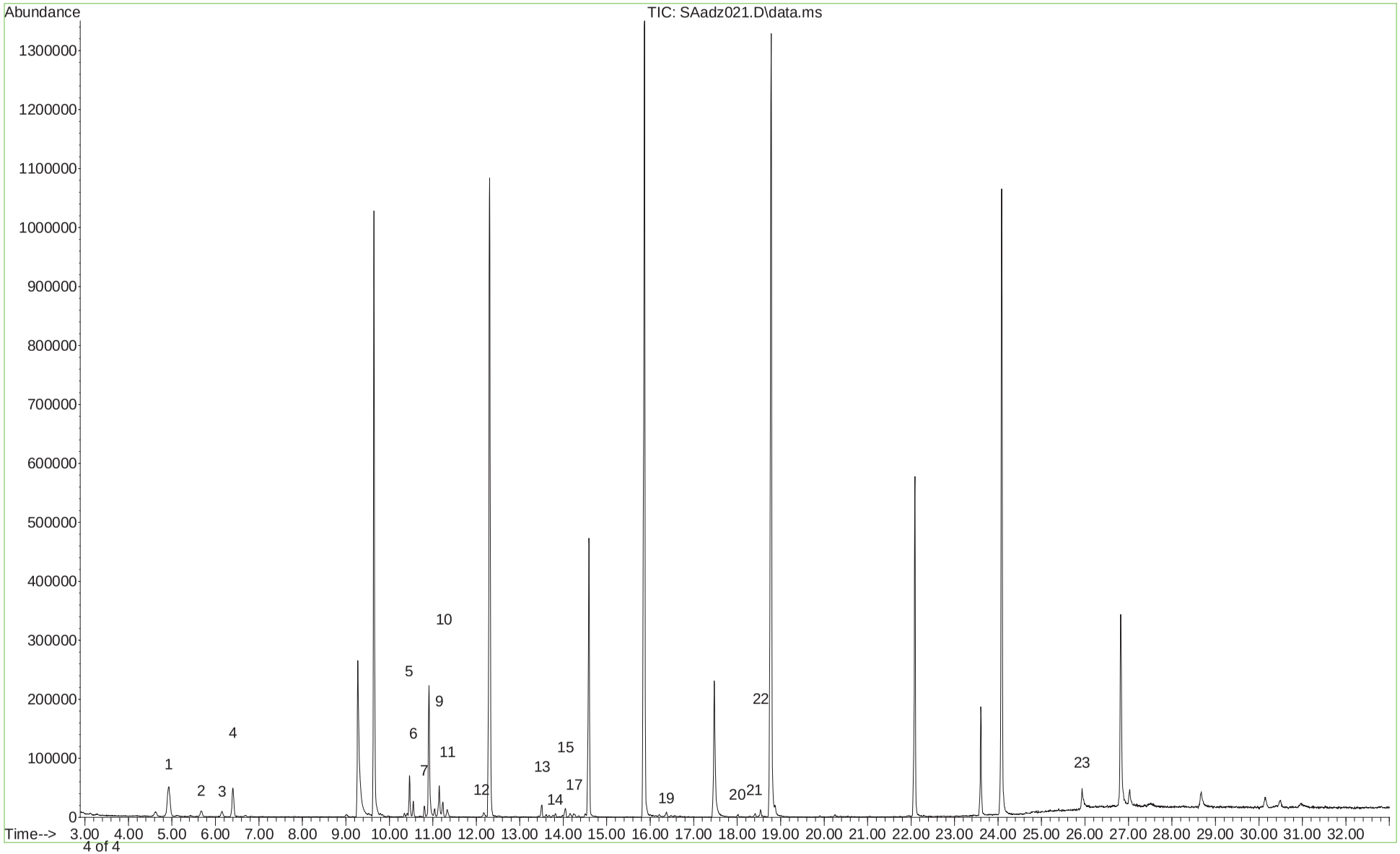
File :D:\msdchem\1\DATA\PBAFV\PBafv231.D
Operator : JE
Acquired : 18 Feb 2012 17:56 using AcqMethod MGT8260.M
Instrument : A2PTGCMS
Sample Name: fe09279 10/400
Misc Info :
Vial Number: 22

VOC



File :D:\MSDCHEM\1\DATA\SAADZ\SAadz021.D
Operator : aw
Acquired : 20 Feb 2012 13:39 using AcqMethod A38270.M
Instrument : AGMS1
Sample Name: fe09279
Misc Info :
Vial Number: 21

SVOC



GOLDER ASSOCIATES PTY LTD
BUILDING 7, BOTANICCA CORPORATE PARK, 570 - 588 SWAN STREET
RICHMOND VIC 3121
Tel: (03) 8862 3500
Fax: (03) 8862 3501

CHAIN OF CUSTODY
Nº 8169

Golder Job Number: 117613201
Job Location: F-VIC
Laboratory Issued To: MGT
Purchase Order No.: GA MELB –
Sampled By (Golder): Roberto Mergia
Golder Job Contact: niamh mccormack
Golder Contact Email: nmccormack@golder.com.au

* OBSERVATIONS	SAMPLE DATE	SAMPLE ID TAAXXX/MQNN	SAMPLE TYPE	SAMPLE DEPTH (m)	No. OF CONTAINERS	pH	Metals (As, Cd, Cr (total), Cu, Hg, Ni, Pb, Zn)	Total Petroleum Hydrocarbons (TPH)	Benzene, Toluene, Ethyl benzene, Xylenes (BTEX)	Polycyclic Aromatic Hydrocarbons (PAH) (Standard 16)	Organochlorine Pesticides (OCP)	Organophosphorus Pesticides (OPP)	Polychlorinated Biphenyls (PCB)	EPA Victoria Publication 448.3 Table 2 Screen (no ASLP testing)	EPA Victoria Publication 448.3 Table 3 Screen (incl. ASLP testing)	PFOS/PFOA	VOC (full scan + naphthalene)	SVOC (full scan)	TOC	Perchlorates	Phenols	HOLD
1	14/2/2012	A7PT7/2801	SOIL	0.5-1.0	3	X	X	X	X	X	X	X	X			X	X	X	X	X	X	

Special Instructions:

TURN AROUND TIME REQUIRED
☐ 1 Working Day ☐ 2 Working Days ☐ 3 Working Days ☐ 4 Working Days ☒ 5 Working Days (standard) ☐ Other

SAMPLE RECEIPT
Relinquished by: Roberto Mergia Date: 14/2 Time: 15:00
Organisation: Golder Associates
Received by: N. MAP #327233 Date: 15-2-12 Time: 3:29 PM
Organisation: MGT

ANALYTICAL SCHEDULE
Relinquished by: Niamh McCormack Date: 15/2 Time: 10:00
Organisation: Golder Associates
Received by: Date: Time:
Organisation:

RECEIVING LABORATORY TO CONFIRM RECEIPT OF ANALYTICAL SCHEDULE BY RETURN FAX TO : (03) 8862 3501

DELIVERED BY: ☐ COURIER/LAB ☐ GOLDER
RECEIVED BY: ☐ FAX ☐ HAND

SAMPLE STATUS
☐ Security Sealed ☐ Chilled ☐ Frozen ☐ Ambient

Checked By: _____ Date: _____

Observations to Assist Analysis and OH&S
HS - Expected High Salinity
HOC - Expected High Total Organic Carbon
S - Sheen
O - Odourous

Original (white) - Laboratory
Duplicate (yellow) - Project File
Triplicate (pink) - COC Book

LEEDER
CONSULTING

A.B.N. 540 864 910 09
4 - 5, 18 Redland Drive
Mitcham, Vic, 3132
Telephone: (03) 9874 1988
Fax: (03) 9874 1933

Chartered Chemists

29-Feb-2012

REPORT NUMBER: M120315

Site/Client Ref: 327233

Order No: 12/109

MGT-LabMark

3 Kingston Town Close
Oakleigh
VIC 3166
Attention: Adrian Tabacchiera

CERTIFICATE OF ANALYSIS

SAMPLES:	One sample was received for analysis
DATE RECEIVED:	**20-Feb-2012**
DATE COMMENCED:	**21-Feb-2012**
METHODS:	See Attached Results
RESULTS:	Please refer to attached pages for results.

Note: Results are based on samples as received at Leeder Consulting's laboratories

REPORTED BY:

Adam Atkinson
Laboratory Manager

This report has been prepared in accordance with the quality system of Leeder Consulting Pty. Ltd and may not be reproduced except in full.

LEEDER
CONSULTING

(I) RESULTS

Report N°: M120315

Matrix: Soil

Method: MA-1548.SL.01

Sample units are expressed in mg/kg on a dry weight basis unless otherwise stated

	Leeder ID	2012003193	2012003194	2012003195
	Client ID	FE09279	FE09279	Method
Analyte Name	**PQL**		Duplicate	Blank
Perchlorate	0.01	nd	nd	nd

LEEDER CONSULTING

(II) QUALITY CONTROL

Report N°: M120315

Matrix: Soil

Method: MA-1548.SL.01

Quality Control Results are expressed in Percent Recovery of expected result

	Leeder ID	2012003196	2012003197
	Client ID	FE09279	FE09279
Analyte Name	**PQL**	Spike	Spike Dup
Perchlorate		78	66

Report N°: M120315

QUALIFIERS / NOTES FOR REPORTED RESULTS

PQL	Practical Quantitation Limit
is	Insufficient Sample to perform this analysis.
T	Tentative identification based on computer library search of mass spectra.
ND	Not Detected – The analyte was not detected above the reported PQL.
NC	Not calculated, Results below PQL
nr	Not Requested for analysis.
R	Rejected Result – results for this analysis failed QC checks.
SQ	Semi-Quantitative result – quantitation based on a generic response factor for this class of analyte.
IM	Inappropriate method of analysis for this compound
U	Unable to provide Quality Control data – high levels of compounds in sample interfered with analysis of QC results.
UF	Unable to provide Quality Control data- Surrogates failed QCchecks due to sample matrix effects
L	Analyte detected at a level above the linear response of calibration curve.
C1	These compounds co-elute.
C2	These compounds co-elute.
CT	Elevated concentration. Results reported from carbon tube analysis
**	Sample shows non-petroleum hydrocarbon profile

LEEDER
CONSULTING

APPENDIX ONE.

CHAIN OF CUSTODY DOCUMENT

☐ **MELBOURNE**
Ph: (03) 9564 7055
2-5 Kingston Town Close, Oakleigh, Vic. 3164
Email: enviro.melb@mgtlabmark.com.au

☐ **BRISBANE**
Ph: (07) 3902 4600
1/21 Smallwood Place Murarrie QLD 4172
Email: enviro.bris@mgtlabmark.com.au

☐ **SYDNEY**
Ph: (02) 8215 6222
Unit F3, 16 Mars Road, Lane Cove West NSW 2066
Email: enviro.syd@mgtlabmark.com.au

mgt LabMark ENVIRONMENTAL LABORATORIES

External Analysis Request

Please report results to: A TABBACHIERA. **mgt-LabMark Ref:** **Results Required:** —— **Page :** 1 of 1

Company Name: LEEDER CONSULTING **Client COC attached:** Yes ☐ No ☒ **Date:** 15.2.12

Address: UNIT 5, 18 REDLAND DVR **Client Job Ref:** 327233

MITCHAM 3132 **mgt-LabMark Contact:** A. TABBACHIERA. *(If applicable)*

Telephone: _____ **Fax:** _____ **mgt-LabMark PurchaseOrder:** 12-109-327233

SAMPLE ID	MGT-LabMark ID	SAMPLE TYPE	TESTS REQUIRED	Rec. Lab ID
FE09279	[redacted]	S	FOR PERCHLORATE ANALYSIS	

Total No. Samples: _____ Comments: _____

Chain of Custody

Relinquished by: N. MARP Date/Time: 15.2.12 6pm

Received by: Lyndall Stevens Date/Time: 20/2/12 5:50pm

Relinquished by: _____ Date/Time: _____

Received by: _____ Date/Time: _____

Sample Receipt Advice *(Receiving Lab Use Only)*

All Samples Received in Good Condition ☐ *Average sample temp on receipt: (°C)* _____

All Documentation in Proper Order ☐

Samples Received with an Attempt to Chill ☐ *For all enquires please quote Ref. No.* _____

Samples Received Within Holding Times ☐

Please complete this section and return to the MGT-LabMark laboratory indicated above

mgt LabMark
ENVIRONMENTAL LABORATORIES

Phone : (+61) 3 9564 7055
e.mail : enviro.melbourne@mgtlabmark.com.au

12/109 327233

PURCHASE ORDER

ABN 50 005 085 521

DATE: 15TH OF February

TO SUPPLIER: LEEDER CONSULTING
Unit 5, 18 Redland Drive
Mitcham
VIC 3132

DELIVERY TO: MGT Labmark
5 Kingston Town Close
Oakleigh, Vic 3166
Australia

Please provide the following items:

1 samples (FE09279) for PERCHLORATE analysis.

Authorised

Sefton McGraw
Technical Manager

mgt LabMark ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtenv.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Sample Receipt Advice

Company name: **Golder Associates Pty Ltd (Richmond)**

Contact name: - Natalie Cooper - ALL COCs/SRAs/REPORTS
Client job number: 117613201
COC number: Not provided
Turn around time: 5 Day
Date/Time received: Feb 15, 2012 3:24 PM
MGT lab reference: **327233**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Organic samples had Teflon liners.

☑ Sample containers for volatile analysis received with zero headspace.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Notes

WE HAVE RECIEVED 3 TRIP BLANK VIALS THAT ARE NOT LISTED ON THE COC -BATCH NO. 0124.

Contact notes

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

Adrian Tabacchiera on Phone : (03) 9564 7055 or by e.mail:
adrian.tabacchiera@mgtlabmark.com.au

Results will be delivered electronically via e.mail to - Natalie Cooper - ALL COCs/SRAs/REPORTS - ngcooper@golder.com.au.

mgt Sample Receipt

mgt LabMark
ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Order No.:
Report #: 327233
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Feb 15, 2012 3:24 PM
Due: Feb 22, 2012 4:00 PM
Priority: 5 Day
Contact name: - Natalie Cooper - ALL COCs/ SRAs/REPORTS

Client Job No.: F-VVC 117613201

mgt-LabMark Client Manager: Adrian

Sample Detail					% Moisture	Arsenic	Cadmium	Chromium	Copper	GC-MS Scan (Purge & Trap)	GC-MS Scan (Semivolatile)	HOLD	Lead	Leeder Report Fee	LRM Report Fee	Mercury	Nickel	Perchlorate*	PFOS/PFOA	pH (1:5 Aqueous extract)	Total Organic Carbon	Zinc	BTEX	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorous Pesticides	Polychlorinated Biphenyls	Semivolatile Organics	Volatile Organics	Phenols (IWRG 621)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																															
Melbourne Laboratory - NATA Site #1261					X	X	X	X	X	X	X	X	X			X	X			X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site #1645																															
External Laboratory														X	X			X	X												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																											
A7PT7/2801	Feb 14, 2012		Soil	M12-Fe09279	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
TRIP BLANK BN 0124	Feb 14, 2012		Water	M12-Fe09280								X																				

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Golder Associates Pty Ltd
570-588 Swan Street
Richmond
VIC 3121

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Attention: - Natalie Cooper - ALL COCs/SRAs/REPORTS

Report	327233-S
Client Reference	F-VIC 117613201
Received Date	Feb 15, 2012

Client Sample ID			**A7PT7/2801**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe09279**
Date Sampled			**Feb 14, 2012**
Test/Reference	LOR	Unit	
GC-MS Scan (Purge & Trap)	0		see attached
GC-MS Scan (Semivolatile)	0	mg/kg	see attached
Perchlorate*			see attached
PFOS/PFOA			see attached
pH (1:5 Aqueous extract)	0.1	units	7.4
Total Organic Carbon	50	mg/kg	8100
% Moisture	0.1	%	20
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	51
TRH C10-36 (Total)	50	mg/kg	51
BTEX			
Benzene	0.05	mg/kg	< 0.05
Toluene	0.05	mg/kg	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05
o-Xylene	0.05	mg/kg	< 0.05
Total m+p-Xylenes	0.10	mg/kg	< 0.1
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15
Fluorobenzene (surr.)	1	%	95
Volatile Organics			
1.1-Dichloroethane	0.05	mg/kg	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05

Client Sample ID			**A7PT7/2801**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe09279**
Date Sampled			**Feb 14, 2012**
Test/Reference	LOR	Unit	
2-Butanone (MEK)	0.05	mg/kg	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05
Bromoform	0.05	mg/kg	< 0.05
Bromomethane	0.05	mg/kg	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05
Chloroethane	0.05	mg/kg	< 0.05
Chloroform	0.05	mg/kg	< 0.05
Chloromethane	0.05	mg/kg	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05
Iodomethane	0.05	mg/kg	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05
Styrene	0.05	mg/kg	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05
4-Bromofluorobenzene (surr.)	1	%	93
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b)fluoranthene	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5

Client Sample ID			A7PT7/2801
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-Fe09279
Date Sampled			Feb 14, 2012
Test/Reference	LOR	Unit	
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH	0.5	mg/kg	< 0.5
p-Terphenyl-d14 (surr.)	1	%	85
2-Fluorobiphenyl (surr.)	1	%	85
Organochlorine Pesticides			
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
Chlordane	0.1	mg/kg	< 0.1
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	117
Tetrachloro-m-xylene (surr.)	1	%	101
Organophosphorous Pesticides			
Bolstar	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2

Client Sample ID			A7PT7/2801
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-Fe09279
Date Sampled			Feb 14, 2012
Test/Reference	LOR	Unit	
Naled	0.5	mg/kg	< 0.5
Phorate	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	94
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB	0.1	mg/kg	< 0.1
Semivolatile Organics			
1-Chloronaphthalene	0.5	mg/kg	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5
2-Naphthylamine	0.5	mg/kg	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5
2-Picoline	0.5	mg/kg	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5
3-Methylcholanthrene	0.5	mg/kg	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5
4.4'-DDD	0.5	mg/kg	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5
a-BHC	0.5	mg/kg	< 0.5
Acetophenone	0.5	mg/kg	< 0.5
Aldrin	0.5	mg/kg	< 0.5
Aniline	0.5	mg/kg	< 0.5
b-BHC	0.5	mg/kg	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5

Client Sample ID			**A7PT7/2801**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe09279**
Date Sampled			**Feb 14, 2012**
Test/Reference	LOR	Unit	
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5
d-BHC	0.5	mg/kg	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5
Dieldrin	0.5	mg/kg	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5
Endrin	0.5	mg/kg	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5
g-BHC (Lindane)	0.5	mg/kg	< 0.5
Heptachlor	0.5	mg/kg	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5
Pronamide	0.5	mg/kg	< 0.5
Trifluralin	0.5	mg/kg	< 0.5
Nitrobenzene-d5 (surr.)	1	%	90
2.4.6-Tribromophenol (surr.)	1	%	94
Phenols (Halogenated)			
2-Chlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1
Pentachlorophenol	1.0	mg/kg	< 1
Tetrachlorophenols - Total	5.0	mg/kg	< 5
Total Halogenated Phenol	1	mg/kg	< 1
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20

Client Sample ID			**A7PT7/2801**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe09279**
Date Sampled			**Feb 14, 2012**
Test/Reference	LOR	Unit	
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
4-Nitrophenol	5	mg/kg	< 5
Dinoseb	20	mg/kg	< 20
Phenol	0.5	mg/kg	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20
Phenol-d6 (surr.)	1	%	79
Heavy Metals			
Arsenic	2	mg/kg	2.7
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	57
Copper	5	mg/kg	9.1
Lead	5	mg/kg	28
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	14
Zinc	5	mg/kg	19

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
GC-MS Scan (Purge & Trap)	Melbourne	Feb 22, 2012	14 Day
pH (1:5 Aqueous extract) - Method: APHA 4500 pH by Direct Measurement	Melbourne	Feb 16, 2012	7 Day
Total Organic Carbon - Method: APHA 5310B Total Organic Carbon	Melbourne	Feb 16, 2012	28 Day
% Moisture - Method: Method 102 - ANZECC - % Moisture	Melbourne	Feb 16, 2012	14 Day
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: TRH C6-C36 - MGT 100A	Melbourne	Feb 22, 2012	14 Day
BTEX - Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons	Melbourne	Feb 16, 2012	14 Day
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Feb 16, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Melbourne	Feb 22, 2012	14 Day
Polycyclic Aromatic Hydrocarbons - Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons	Melbourne	Feb 22, 2012	14 Day
Organochlorine Pesticides - Method: USEPA 8081 Organochlorine Pesticides	Melbourne	Feb 16, 2012	14 Day
Organophosphorous Pesticides - Method: USEPA 8141 Organophosphorus Pesticides	Melbourne	Feb 16, 2012	14 Day
Polychlorinated Biphenyls - Method: USEPA 8082 Polychlorinated Biphenyls	Melbourne	Feb 16, 2012	14 Day
Semivolatile Organics - Method: USEPA 8270 Semivolatile Organics	Melbourne	Feb 16, 2012	14 Day
Phenols (Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Feb 22, 2012	14 Day
Phenols (non-Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Feb 22, 2012	14 Day
Heavy Metals - Method: USEPA 6010/6020 Heavy Metals	Melbourne	Feb 16, 2012	180 Day

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

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

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

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

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Organic Carbon	mg/kg	< 50			50	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	< 0.05			0.05	Pass	
Toluene	mg/kg	< 0.05			0.05	Pass	
Ethylbenzene	mg/kg	< 0.05			0.05	Pass	
o-Xylene	mg/kg	< 0.05			0.05	Pass	
Total m+p-Xylenes	mg/kg	< 0.1			0.10	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 0.15			0.15	Pass	
Method Blank							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dibromoethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
2-Butanone (MEK)	mg/kg	< 0.05			0.05	Pass	
2-Propanone (Acetone)	mg/kg	< 0.05			0.05	Pass	
4-Chlorotoluene	mg/kg	< 0.05			0.05	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.05			0.05	Pass	
Allyl chloride	mg/kg	< 0.05			0.05	Pass	
Bromobenzene	mg/kg	< 0.05			0.05	Pass	
Bromochloromethane	mg/kg	< 0.05			0.05	Pass	
Bromodichloromethane	mg/kg	< 0.05			0.05	Pass	
Bromoform	mg/kg	< 0.05			0.05	Pass	
Bromomethane	mg/kg	< 0.05			0.05	Pass	
Carbon disulfide	mg/kg	< 0.05			0.05	Pass	
Carbon Tetrachloride	mg/kg	< 0.05			0.05	Pass	
Chlorobenzene	mg/kg	< 0.05			0.05	Pass	
Chloroethane	mg/kg	< 0.05			0.05	Pass	
Chloroform	mg/kg	< 0.05			0.05	Pass	
Chloromethane	mg/kg	< 0.05			0.05	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Dibromochloromethane	mg/kg	< 0.05			0.05	Pass	
Dibromomethane	mg/kg	< 0.05			0.05	Pass	
Dichlorodifluoromethane	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Iodomethane	mg/kg	< 0.05			0.05	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.05			0.05	Pass	
Methylene Chloride	mg/kg	< 0.05			0.05	Pass	
Styrene	mg/kg	< 0.05			0.05	Pass	
Tetrachloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Trichloroethene	mg/kg	< 0.05			0.05	Pass	
Trichlorofluoromethane	mg/kg	< 0.05			0.05	Pass	
Vinyl chloride	mg/kg	< 0.05			0.05	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl azinphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Naled	mg/kg	< 0.5			0.5	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 0.5			0.5	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
2.6-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 0.5			0.5	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-BHC	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
b-BHC	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-BHC	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-BHC (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 0.5			0.5	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 5			5.0	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals USEPA 6010/6020 Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	92			70-130	Pass	
TRH C10-C14	%	111			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	96			70-130	Pass	
Toluene	%	92			70-130	Pass	
Ethylbenzene	%	90			70-130	Pass	
Total m+p-Xylenes	%	82			70-130	Pass	
Xylenes(ortho.meta and para)	%	80			70-130	Pass	
LCS - % Recovery							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethene	%	95			70-130	Pass	
1.1.1-Trichloroethane	%	80			70-130	Pass	
1.2-Dichloroethane	%	84			70-130	Pass	
Carbon Tetrachloride	%	76			70-130	Pass	
Trichloroethene	%	94			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	88			70-130	Pass	
TRH >C10-C16	%	105			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Pyrene	%	79			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	82			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDE	%	80			70-130	Pass	
4.4'-DDT	%	71			70-130	Pass	
a-BHC	%	91			70-130	Pass	
Aldrin	%	83			70-130	Pass	
b-BHC	%	79			70-130	Pass	
d-BHC	%	83			70-130	Pass	
Dieldrin	%	81			70-130	Pass	
Endosulfan I	%	78			70-130	Pass	
Endosulfan II	%	93			70-130	Pass	
Endosulfan sulphate	%	73			70-130	Pass	
Endrin	%	72			70-130	Pass	
Endrin aldehyde	%	77			70-130	Pass	
Endrin ketone	%	94			70-130	Pass	
g-BHC (Lindane)	%	87			70-130	Pass	
Heptachlor	%	73			70-130	Pass	
Heptachlor epoxide	%	76			70-130	Pass	
Hexachlorobenzene	%	86			70-130	Pass	
Methoxychlor	%	114			70-130	Pass	
LCS - % Recovery							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Diazinon	%	92			70-130	Pass	
Ethion	%	89			70-130	Pass	
Fenitrothion	%	87			70-130	Pass	
Methyl parathion	%	88			70-130	Pass	
Mevinphos	%	115			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	104			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
1.2.4-Trichlorobenzene	%	86			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	%	84			30-130	Pass	
4-Chloro-3-methylphenol	%	77			30-130	Pass	
Pentachlorophenol	%	50			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated) USEPA 8270 Phenols							
4-Nitrophenol	%	54			30-130	Pass	
Phenol	%	84			30-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	88			70-130	Pass	
TRH >C10-C16	%	105			70-130	Pass	
LCS - % Recovery							
Heavy Metals USEPA 6010/6020 Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Chromium	%	106			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	105			80-120	Pass	
Mercury	%	113			75-125	Pass	
Nickel	%	104			80-120	Pass	
Zinc	%	111			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M12-Fe09279	CP	%	90			70-130	Pass	
TRH C10-C14	M12-Fe09279	CP	%	103			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M12-Fe09279	CP	%	97			70-130	Pass	
Toluene	M12-Fe09279	CP	%	93			70-130	Pass	
Ethylbenzene	M12-Fe09279	CP	%	94			70-130	Pass	
o-Xylene	M12-Fe09279	CP	%	79			70-130	Pass	
Total m+p-Xylenes	M12-Fe09279	CP	%	85			70-130	Pass	
Xylenes(ortho.meta and para)	M12-Fe09279	CP	%	83			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M12-Fe09279	CP	%	92			70-130	Pass	
1.1.1-Trichloroethane	M12-Fe09279	CP	%	84			70-130	Pass	
1.2-Dichlorobenzene	M12-Fe09279	CP	%	83			70-130	Pass	
1.2-Dichloroethane	M12-Fe09279	CP	%	85			70-130	Pass	
Carbon Tetrachloride	M12-Fe09279	CP	%	78			70-130	Pass	
Trichloroethene	M12-Fe09279	CP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	M12-Fe09279	CP	%	90			70-130	Pass	
TRH >C10-C16	M12-Fe09279	CP	%	98			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M12-Fe09279	CP	%	92			70-130	Pass	
Pyrene	M12-Fe09279	CP	%	88			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	A12-Fe07011	NCP	%	90			70-130	Pass	
4.4'-DDE	A12-Fe07011	NCP	%	91			70-130	Pass	
4.4'-DDT	A12-Fe07011	NCP	%	89			70-130	Pass	
a-BHC	A12-Fe07011	NCP	%	100			70-130	Pass	
Aldrin	A12-Fe07011	NCP	%	93			70-130	Pass	
b-BHC	A12-Fe07011	NCP	%	89			70-130	Pass	
d-BHC	A12-Fe07011	NCP	%	94			70-130	Pass	
Dieldrin	A12-Fe07011	NCP	%	92			70-130	Pass	
Endosulfan I	A12-Fe07011	NCP	%	90			70-130	Pass	
Endosulfan II	A12-Fe07011	NCP	%	74			70-130	Pass	
Endosulfan sulphate	A12-Fe07011	NCP	%	84			70-130	Pass	
Endrin	A12-Fe07011	NCP	%	89			70-130	Pass	
Endrin aldehyde	A12-Fe07011	NCP	%	86			70-130	Pass	
Endrin ketone	A12-Fe07011	NCP	%	103			70-130	Pass	
g-BHC (Lindane)	A12-Fe07011	NCP	%	97			70-130	Pass	
Heptachlor	A12-Fe07011	NCP	%	84			70-130	Pass	
Heptachlor epoxide	A12-Fe07011	NCP	%	87			70-130	Pass	
Hexachlorobenzene	A12-Fe07011	NCP	%	97			70-130	Pass	
Methoxychlor	A12-Fe07011	NCP	%	73			70-130	Pass	
Spike - % Recovery									
Organophosphorous Pesticides				Result 1					
Diazinon	M12-Fe09279	CP	%	107			70-130	Pass	
Ethion	M12-Fe09279	CP	%	75			70-130	Pass	
Fenitrothion	M12-Fe09279	CP	%	97			70-130	Pass	
Methyl parathion	M12-Fe09279	CP	%	86			70-130	Pass	
Mevinphos	M12-Fe09279	CP	%	102			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M12-Fe08791	NCP	%	124			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Semivolatile Organics				Result 1					
1.2.4-Trichlorobenzene	M12-Fe09279	CP	%	89			70-130	Pass	
1.4-Dichlorobenzene	M12-Fe09279	CP	%	78			70-130	Pass	
2.4-Dinitrotoluene	M12-Fe09279	CP	%	90			70-130	Pass	
N-Nitrosodipropylamine	M12-Fe09279	CP	%	90			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	M12-Fe09279	CP	%	99			30-130	Pass	
4-Chloro-3-methylphenol	M12-Fe09279	CP	%	88			30-130	Pass	
Pentachlorophenol	M12-Fe09279	CP	%	72			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
4-Nitrophenol	M12-Fe09279	CP	%	46			30-130	Pass	
Phenol	M12-Fe09279	CP	%	91			30-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	M12-Fe09279	CP	%	90			70-130	Pass	
TRH >C10-C16	M12-Fe09279	CP	%	98			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M12-Fe09279	CP	%	80			75-125	Pass	
Cadmium	M12-Fe09279	CP	%	96			75-125	Pass	
Chromium	M12-Fe09279	CP	%	107			75-125	Pass	
Copper	M12-Fe09279	CP	%	110			75-125	Pass	
Lead	M12-Fe09279	CP	%	82			75-125	Pass	
Mercury	M12-Fe09279	CP	%	83			70-130	Pass	
Nickel	M12-Fe09279	CP	%	99			75-125	Pass	
Zinc	M12-Fe09279	CP	%	108			75-125	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M12-Fe09279	CP	mg/kg	< 50	< 50	5.0	30%	Pass	
TRH C29-C36	M12-Fe09279	CP	mg/kg	51	< 50	12	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toluene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Ethylbenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
o-Xylene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Total m+p-Xylenes	M12-Fe09279	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes(ortho.meta and para)	M12-Fe09279	CP	mg/kg	< 0.15	< 0.15	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1-Dichloroethene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1-Trichloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2-Trichloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dibromoethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloropropane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.3-Trichloropropane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.4-Trimethylbenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichloropropane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3.5-Trimethylbenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.4-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Butanone (MEK)	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Propanone (Acetone)	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Chlorotoluene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Allyl chloride	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromobenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromochloromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromodichloromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromoform	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromomethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon disulfide	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon Tetrachloride	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlorobenzene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroform	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.2-Dichloroethene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.3-Dichloropropene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromochloromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromomethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dichlorodifluoromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Iodomethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Isopropyl benzene (Cumene)	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methylene Chloride	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Styrene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Tetrachloroethene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.2-Dichloroethene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.3-Dichloropropene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichloroethene	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichlorofluoromethane	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Vinyl chloride	M12-Fe09279	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-Fe09279	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M12-Fe09279	CP	mg/kg	< 100	< 100	8.8	30%	Pass	
TRH >C34-C40	M12-Fe09279	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	A12-Fe07011	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	A12-Fe07011	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	A12-Fe07011	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Organophosphorous Pesticides				Result 1	Result 2	RPD			
Bolstar	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl azinphos	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Naled	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB	M12-Fe08791	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
1-Chloronaphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2.3.4-Tetrachlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylnaphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Naphthylamine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Picoline	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrotoluene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3-Methylcholanthrene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDD	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-BHC	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-BHC	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-BHC	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachloroethane	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
N-Nitrosodipropylamine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M12-Fe09279	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M12-Fe09279	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M12-Fe09279	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Pentachlorophenol	M12-Fe09279	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Tetrachlorophenols - Total	M12-Fe09279	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	M12-Fe09279	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M12-Fe09279	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Nitrophenol	M12-Fe09279	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4-Dimethylphenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M12-Fe09279	CP	mg/kg	< 5	< 5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M12-Fe09279	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
4-Nitrophenol	M12-Fe09279	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Dinoseb	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Phenol	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-Fe09279	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-Fe09279	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-Fe09279	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M12-Fe09279	CP	mg/kg	< 100	< 100	8.8	30%	Pass	
TRH >C34-C40	M12-Fe09279	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M12-Fe09279	CP	mg/kg	2.7	< 2	100	30%	Fail	Q15
Cadmium	M12-Fe09279	CP	mg/kg	< 0.4	0.5	28	30%	Pass	
Chromium	M12-Fe09279	CP	mg/kg	57	51	11	30%	Pass	
Copper	M12-Fe09279	CP	mg/kg	9.1	7.8	15	30%	Pass	
Lead	M12-Fe09279	CP	mg/kg	28	18	47	30%	Fail	Q15
Mercury	M12-Fe09279	CP	mg/kg	< 0.1	< 0.1	100	30%	Fail	Q15
Nickel	M12-Fe09279	CP	mg/kg	14	14	2.0	30%	Pass	
Zinc	M12-Fe09279	CP	mg/kg	19	9.4	68	30%	Fail	Q15

Comments

Please note: Perchlorate analysed at Leeder. Report Reference M120315.

Please note1: PFOS/PFOA analysed at AsureQuality. Report reference 107261

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Adrian Tabacchiera	Client Services
Carroll Lee	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Mary Makarios	Senior Analyst-Metal (VIC)
Orlando Scalzo	Senior Analyst-Organic (VIC)

Michael Wright
National Technical Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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mgt LabMark ENVIRONMENTAL LABORATORIES

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time

mgt-LabMark 2-5 Kingston Town Close, Oakleigh, Victoria, Australia, 3166
ABN : 50 005 085 521 Telephone: +61 3 9564 7055 Facsimile: +61 3 9564 7190

Quality Control Results

Comments

Sample Integrity

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

Authorised By

Adrian Tabacchiera Client Services

Michael Wright
National Technical Manager

- Indicates Not Requested
* Indicates NATA accreditation does not cover the performance of this service
Uncertainty data is available on request

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1C Quadrant Drive, Waiwhetu
P.O. Box 31 242, Lower Hutt 5010
Wellington, New Zealand

T 64 4 5708800
F 64 4 5708176
W www.asurequality.com

Certificate of Analysis

Date Issued: 7 March 2012

Client: mgt-Labmark Environmental Pty Ltd
2-5 Kingston Town Close
Oakleigh
VIC 3166
Australia

Attention: Andrew Thexton

AsureQuality Lab. Reference: 107264

Sample Type(s): Soil

Analysis: **Perfluorinated Compounds (PFCs)**

Method: In-House LC-MS/MS Method

Samples were passed through a 2mm sieve prior to analysis. Material that did not pass through the sieve was not included in the analysis.

Results are reported as nanograms per gram (ng/g), on a dry weight basis to two significant figures. The LOR value is reported to two significant figures. Results have been corrected for recovery.

Unless requested, samples will be disposed of eight weeks from the date of this report.

Comments:
None.

Glen Fern
Senior Scientist
AsureQuality Limited

Results: Perfluorinated Compounds

Laboratory Reference: 107264-1

Sample Identification: Fe11425 Soil

Date Received: 22 February 2012 Date Analysed: 2 March 2012

Date Extracted: 1 March 2012

Analyte[1]	Conc.[2] (ng/g)	LOR (ng/g)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	160	1.0	
Perfluorohexanesulfonic acid (PFHxS)	240	1.0	
Perfluorooctanesulfonic acid (PFOS)[3]	300	100	E
Perfluorodecanesulfonic acid (PFDS)	ND	1.0	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	210	1.0	
Perfluoroheptanoic acid (PFHpA)	18	1.0	
Perfluorooctanoic acid (PFOA)	14	1.0	
Perfluorononanoic acid (PFNA)	ND	1.0	
Perfluorodecanoic acid (PFDA)	ND	1.0	
Perfluoroundecanoic acid (PFUnA)	ND	2.0	
Perfluorododecanoic acid (PFDoA)	ND	1.0	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	1.9	1.0	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	4.0	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	4.0	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	ND	2.0	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	ND	4.0	

Footnotes:

[1] The analytes listed represent the linear isomer

[2] Results are reported on a dry weight basis.

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting

ND: Not Detected

E: Estimated Value

Lab Analyst: CFH/SW Data Analyst: CFH Authorised: GF

THIS REPORT MUST ONLY BE REPRODUCED IN ITS ENTIRETY

Results: Perfluorinated Compounds

Laboratory Reference: 107264-BL

Sample Identification: Laboratory Blank

Date Received: Not Applicable

Date Analysed: 2 March 2012

Date Extracted: 1 March 2012

Analyte[1]	Conc.[2] (ng/g)	LOR (ng/g)	Data Qualifiers
Perfluoroalkylsulfonic acids			
Perfluorobutanesulfonic acid (PFBS)	ND	1.0	
Perfluorohexanesulfonic acid (PFHxS)	ND	1.0	
Perfluorooctanesulfonic acid (PFOS)[3]	ND	1.0	
Perfluorodecanesulfonic acid (PFDS)	ND	1.0	
Perfluoroalkylcarboxylic acids			
Perfluorohexanoic acid (PFHxA)	ND	1.0	
Perfluoroheptanoic acid (PFHpA)	ND	1.0	
Perfluorooctanoic acid (PFOA)	ND	1.0	
Perfluorononanoic acid (PFNA)	ND	1.0	
Perfluorodecanoic acid (PFDA)	ND	1.0	
Perfluoroundecanoic acid (PFUnA)	ND	2.0	
Perfluorododecanoic acid (PFDoA)	ND	1.0	
Other PFCs			
Perfluorooctanesulfonamide (PFOSA)	ND	1.0	
N-ethyl-perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	4.0	
N-methyl-perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	4.0	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2 FTS)	ND	2.0	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2 FTS)	ND	4.0	

Footnotes:

[1] The analytes listed represent the linear isomer

[2] The results are calculated using the average weight of samples in this batch

[3] The result for PFOS also includes its salts and perfluorooctanesulfonyl fluoride (PFOSF).

Abbreviations:

LOR: Limit of Reporting

ND: Not Detected

Lab Analyst: CFH/SW

Data Analyst: CFH

Authorised: GF

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Golder Associates

CHAIN OF CUSTODY

Nº 8172

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Golder Job Number: 117613201
Job Location: F-VIC
Laboratory Issued To: HOT
Purchase Order No.: GA MELB
Sampled By (Golder): Roberto Negra
Golder Job Contact: Niall McDonald
Golder Contact Email: nmcdonald@golder.com.au

* OBSER-VATIONS	SAMPLE DATE	SAMPLE ID TAAXXX/MQNN	SAMPLE TYPE	SAMPLE DEPTH (m)	No. OF CONTAIN-ERS	pH	Metals (As, Cd, Cr (total), Cu, Hg, Ni, Pb, Zn)	Total Petroleum Hydrocarbons (TPH)	Benzene, Toluene, Ethyl benzene, Xylenes (BTEX)	Polycyclic Aromatic Hydrocarbons (PAH) (Standard 16)	Organochlorine Pesticides (OCP)	Organophosphorus Pesticides (OPP)	Polychlorinated Biphenyls (PCB)	EPA Victoria Publication 448.3 Table 2 Screen (no ASLP testing)	EPA Victoria Publication 448.3 Table 3 Screen (incl. ASLP testing)	PFOS/PFOA	VOC	SVOC	TOC	Perchlorates	Phenols
	15/2	A8HA5/2901	SOIL	0.5-0.8	3	X	X	X	X	X	X	X	X			X	X	X	X	X	X

A Battayle.
20/2
327562

Special Instructions:

TURN AROUND TIME REQUIRED

☐ 1 Working Day ☐ 2 Working Days ☐ 3 Working Days ☐ 4 Working Days ☒ 5 Working Days (standard) ☐ Other

SAMPLE RECEIPT

Relinquished by: Niall McDonald Date: 16/2/12 Received by: .... Date: ....
Organisation: Golder Associates Time: 10:00 Organisation: .... Time: ....

ANALYTICAL SCHEDULE

Relinquished by: Niall McDonald Date: 16/2/12 Received by: .... Date: ....
Organisation: Golder Associates Time: 10:00 Organisation: .... Time: ....

DELIVERED BY: ☐ COURIER/LAB ☐ GOLDER
RECEIVED BY: ☐ FAX ☐ HAND

SAMPLE STATUS: ☐ Security Sealed ☐ Chilled ☐ Frozen ☐ Ambient

RECEIVING LABORATORY TO CONFIRM RECEIPT OF ANALYTICAL SCHEDULE BY RETURN FAX TO : (03) 8862 3501

 # Oservations to Assist Analysis and OH&S
C - Expected to be Highly Contaminated
N - NAPL Sample
HS - Expected High Salinity
HOC - Expected High Total Organic Carbon
S - Sheen
O - Odourous

Original (white) - Laboratory
Duplicate (yellow) - Project File
Triplicate (pink) - COC Book

Checked By: ________ Date: ________

LEEDER
CONSULTING

A.B.N. 540 864 910 09
4 - 5, 18 Redland Drive
Mitcham, Vic, 3132
Telephone: (03) 9874 1988
Fax: (03) 9874 1933

Chartered Chemists

29-Feb-2012

REPORT NUMBER: M120317

Site/Client Ref: 327562

Order No: 12/116

MGT-LabMark

3 Kingston Town Close
Oakleigh
VIC 3166
Attention: Adrian Tabacchiera

CERTIFICATE OF ANALYSIS

SAMPLES:	One sample was received for analysis
DATE RECEIVED:	**21-Feb-2012**
DATE COMMENCED:	**21-Feb-2012**
METHODS:	See Attached Results
RESULTS:	Please refer to attached pages for results.

Note: Results are based on samples as received at Leeder Consulting's laboratories

REPORTED BY:

Adam Atkinson
Laboratory Manager

This report has been prepared in accordance with the quality system of Leeder Consulting Pty. Ltd and may not be reproduced except in full.

LEEDER
CONSULTING

(I) RESULTS

Report N°: M120317

Matrix: Soil

Method: MA-1548.SL.01

Sample units are expressed in mg/kg on a dry weight basis unless otherwise stated

	Leeder ID	2012003210	2012003211	2012003212
	Client ID	12-FE11425 A8HA5/ 2901	12-FE11425 A8HA5/ 2901	Method
Analyte Name	**PQL**		Duplicate	Blank
Perchlorate	0.01	nd	nd	nd

LEEDER CONSULTING

(II) QUALITY CONTROL

Report N°: M120317

Matrix: Soil

Method: MA-1548.SL.01

Quality Control Results are expressed in Percent Recovery of expected result

	Leeder ID	2012003213	2012003214
	Client ID	12-FE11425 A8HA5/ 2901	12-FE11425 A8HA5/ 2901
Analyte Name	**PQL**	Spike	Spike Dup
Perchlorate		75	69

Report N°: M120317

QUALIFIERS / NOTES FOR REPORTED RESULTS

PQL	Practical Quantitation Limit
is	Insufficient Sample to perform this analysis.
T	Tentative identification based on computer library search of mass spectra.
ND	Not Detected – The analyte was not detected above the reported PQL.
NC	Not calculated, Results below PQL
nr	Not Requested for analysis.
R	Rejected Result – results for this analysis failed QC checks.
SQ	Semi-Quantitative result – quantitation based on a generic response factor for this class of analyte.
IM	Inappropriate method of analysis for this compound
U	Unable to provide Quality Control data – high levels of compounds in sample interfered with analysis of QC results.
UF	Unable to provide Quality Control data- Surrogates failed QCchecks due to sample matrix effects
L	Analyte detected at a level above the linear response of calibration curve.
C1	These compounds co-elute.
C2	These compounds co-elute.
CT	Elevated concentration. Results reported from carbon tube analysis
**	Sample shows non-petroleum hydrocarbon profile

LEEDER
CONSULTING

APPENDIX ONE.

CHAIN OF CUSTODY DOCUMENT

☐ **MELBOURNE**
Ph: (03) 9564 7055
2-5 Kingston Town Close, Oakleigh, Vic. 3164
Email: enviro.melb@mgtlabmark.com.au

☐ **BRISBANE**
Ph: (07) 3902 4600
1/21 Smallwood Place Murarrie QLD 4172
Email: enviro.bris@mgtlabmark.com.au

☐ **SYDNEY**
Ph: (02) 8215 6222
Unit F3, 16 Mars Road, Lane Cove West NSW 2066
Email: enviro.syd@mgtlabmark.com.au

mgt LabMark ENVIRONMENTAL LABORATORIES

External Analysis Request

Please report results to:

mgt-LabMark Ref: 327562 **Results Required:** 5 DAY **Page :** 1 of 1

Company Name: LEEDER **Client COC attached:** Yes ☐ No ☒ **Date:** 20/2/12

Address: **Client Job Ref:** F-VIC 117613201

mgt-LabMark Contact: ADRIAN T. *(If applicable)*

Telephone: **Fax:** **mgt-LabMark PurchaseOrder:** 12/116

SAMPLE ID	MGT-LabMark ID	SAMPLE TYPE	TESTS REQUIRED	Rec. Lab ID
ASHAS/2901	12-FE111425	SOIL 15/2	PERCHLORATES	

Total No. Samples: 1 Comments:

Chain of Custody

Relinquished by: A. Battersby Date/Time: 20/2/12 12:00PM

Received by: Lyndall Stevens Date/Time: 21/2/12 1:50pm

Relinquished by: Date/Time:

Received by: Date/Time:

Sample Receipt Advice *(Receiving Lab Use Only)*

All Samples Received in Good Condition ☐ *Average sample temp on receipt: (°C)*

All Documentation in Proper Order ☐

Samples Received with an Attempt to Chill ☐ *For all enquires please quote Ref. No.*

Samples Received Within Holding Times ☐

Please complete this section and return to the MGT-LabMark laboratory indicated above

mgt LabMark
ENVIRONMENTAL LABORATORIES

Phone : (+61) 3 9564 7055
e.mail : enviro.melbourne@mgtlabmark.com.au

12/116 327562

PURCHASE ORDER

ABN 50 005 085 521

DATE: 20TH OF February

TO SUPPLIER: LEEDER CONSULTING
Unit 5, 18 Redland Drive
Mitcham
VIC 3132

DELIVERY TO: MGT Labmark
5 Kingston Town Close
Oakleigh, Vic 3166
Australia

Please provide the following items:

1 samples (FE11425) for PERCHLORATE analysis.

Authorised

Sefton McGraw
Technical Manager

mgt LabMark ENVIRONMENTAL LABORATORIES

ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtenv.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh Vic 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Sample Receipt Advice

Company name: **Golder Associates Pty Ltd (Richmond)**

Contact name: Niamh McCormack
Client job number: F-VIC 117613201
COC number: 8172
Turn around time: 5 Day
Date/Time received: Feb 17, 2012 12:28 PM
MGT lab reference: **327562**

Sample information

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

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

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

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

☑ Organic samples had Teflon liners.

☑ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

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

Adrian Tabacchiera on Phone : (03) 9564 7055 or by e.mail:
adrian.tabacchiera@mgtlabmark.com.au

Results will be delivered electronically via e.mail to Niamh McCormack - nmccormack@golder.com.au.

mgt Sample Receipt

mgt LabMark
ENVIRONMENTAL LABORATORIES
ABN – 50 005 085 521 e.mail : mgt@mgtenv.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 9564 7055
NATA # 1261 & 1645
Site # 1254 & 14271

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600

Company Name: Golder Associates Pty Ltd (Richmond)
Address: 570-588 Swan Street
Richmond
VIC 3121

Order No.:
Report #: 327562
Phone: (03) 8862 3500
Fax: (03) 8862 3501

Received: Feb 17, 2012 12:28 PM
Due: Feb 24, 2012 4:00 PM
Priority: 5 Day
Contact name: Niamh McCormack

Client Job No.: F-VIC 117613201

mgt-LabMark Client Manager: Adrian

Sample Detail					% Moisture	Asure Quality Report Fee	Leeder Report Fee	Perchlorate*	PFOS/PFOA	pH (1:5 Aqueous extract)	Total Organic Carbon	BTEX	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorous Pesticides	Polychlorinated Biphenyls	Semivolatile Organics	Volatile Organics	Metals M8	Phenols (IWRG 621)	Total Recoverable Hydrocarbons
Laboratory where analysis is conducted																					
Melbourne Laboratory - NATA Site #1261					X					X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site #1645																					
External Laboratory						X	X	X	X												
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																	
A8HA5/2901	Feb 15, 2012		Soil	M12-Fe11425	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

Golder Associates Pty Ltd
570-588 Swan Street
Richmond
VIC 3121

Attention: Niamh McCormack

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Report	327562-S
Client Reference	F-VIC 117613201
Received Date	Feb 17, 2012

Client Sample ID			**A8HA5/2901**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe11425**
Date Sampled			**Feb 15, 2012**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-36 (Total)	50	mg/kg	< 50
BTEX			
Benzene	0.05	mg/kg	< 0.05
Toluene	0.05	mg/kg	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05
o-Xylene	0.05	mg/kg	< 0.05
Total m+p-Xylenes	0.10	mg/kg	< 0.1
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15
Fluorobenzene (surr.)	1	%	68
Volatile Organics			
1.1-Dichloroethane	0.05	mg/kg	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05

Client Sample ID			**A8HA5/2901**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe11425**
Date Sampled			**Feb 15, 2012**
Test/Reference	LOR	Unit	
Bromoform	0.05	mg/kg	< 0.05
Bromomethane	0.05	mg/kg	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05
Chloroethane	0.05	mg/kg	< 0.05
Chloroform	0.05	mg/kg	< 0.05
Chloromethane	0.05	mg/kg	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05
Iodomethane	0.05	mg/kg	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05
Styrene	0.05	mg/kg	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05
4-Bromofluorobenzene (surr.)	1	%	73
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
PFOS/PFOA			see attached
Perchlorate*			see attached
pH (1:5 Aqueous extract)	0.1	units	6.7
Total Organic Carbon	50	mg/kg	29000
% Moisture	0.1	%	25
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b)fluoranthene	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5

Client Sample ID			**A8HA5/2901**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe11425**
Date Sampled			**Feb 15, 2012**
Test/Reference	LOR	Unit	
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH	0.5	mg/kg	< 0.5
p-Terphenyl-d14 (surr.)	1	%	134
2-Fluorobiphenyl (surr.)	1	%	100
Organochlorine Pesticides			
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
Chlordane	0.1	mg/kg	< 0.1
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	99
Tetrachloro-m-xylene (surr.)	1	%	102
Organophosphorous Pesticides			
Bolstar	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Naled	0.5	mg/kg	< 0.5
Phorate	0.2	mg/kg	< 0.2

Client Sample ID			**A8HA5/2901**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe11425**
Date Sampled			**Feb 15, 2012**
Test/Reference	LOR	Unit	
Ronnel	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2
Triphenylphosphate (surr.)	1	%	85
Polychlorinated Biphenyls			
Aroclor-1016	0.1	mg/kg	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1
Total PCB	0.1	mg/kg	< 0.1
Semivolatile Organics			
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1
2-Picoline	0.5	mg/kg	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5

Client Sample ID			**A8HA5/2901**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-Fe11425**
Date Sampled			**Feb 15, 2012**
Test/Reference	LOR	Unit	
4-Nitrophenol	5	mg/kg	< 5
4.4'-DDD	0.5	mg/kg	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5
a-BHC	0.5	mg/kg	< 0.5
Acetophenone	0.5	mg/kg	< 0.5
Aldrin	0.5	mg/kg	< 0.5
Aniline	0.5	mg/kg	< 0.5
b-BHC	0.5	mg/kg	< 0.5
Benzyl chloride	0.5	mg/kg	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5
d-BHC	0.5	mg/kg	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5
Dieldrin	0.5	mg/kg	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5
Endrin	0.5	mg/kg	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5
g-BHC (Lindane)	0.5	mg/kg	< 0.5
Heptachlor	0.5	mg/kg	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5
Methoxychlor	0.5	mg/kg	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1
Phenol	0.5	mg/kg	< 0.5
Pronamide	0.5	mg/kg	< 0.5
Trifluralin	0.5	mg/kg	< 0.5
Phenol-d6 (surr.)	1	%	100

Client Sample ID			A8HA5/2901
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-Fe11425
Date Sampled			Feb 15, 2012
Test/Reference	LOR	Unit	
Nitrobenzene-d5 (surr.)	1	%	96
2.4.6-Tribromophenol (surr.)	1	%	113
Phenols (Halogenated)			
Tetrachlorophenols - Total	5.0	mg/kg	< 5
Total Halogenated Phenol	1	mg/kg	< 0
Phenols (non-Halogenated)			
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20
Dinoseb	20	mg/kg	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20
Heavy Metals			
Arsenic	2	mg/kg	4.0
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	32
Copper	5	mg/kg	6.3
Lead	5	mg/kg	12
Mercury	0.1	mg/kg	< 0.1
Nickel	5	mg/kg	9.7
Zinc	5	mg/kg	14

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: TRH C6-C36 - MGT 100A	Melbourne	Feb 20, 2012	14 Day
BTEX - Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons	Melbourne	Feb 20, 2012	14 Day
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	Feb 20, 2012	14 Day
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Melbourne	Feb 20, 2012	14 Day
pH (1:5 Aqueous extract) - Method: APHA 4500 pH by Direct Measurement	Melbourne	Feb 20, 2012	7 Day
Total Organic Carbon - Method: APHA 5310B Total Organic Carbon	Melbourne	Feb 20, 2012	28 Day
% Moisture - Method: Method 102 - ANZECC - % Moisture	Melbourne	Feb 20, 2012	14 Day
Polycyclic Aromatic Hydrocarbons - Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons	Melbourne	Feb 20, 2012	14 Day
Organochlorine Pesticides - Method: USEPA 8081 Organochlorine Pesticides	Melbourne	Feb 20, 2012	14 Day
Organophosphorous Pesticides - Method: USEPA 8141 Organophosphorus Pesticides	Melbourne	Feb 20, 2012	14 Day
Polychlorinated Biphenyls - Method: USEPA 8082 Polychlorinated Biphenyls	Melbourne	Feb 20, 2012	14 Day
Semivolatile Organics - Method: USEPA 8270 Semivolatile Organics	Melbourne	Feb 20, 2012	14 Day
Phenols (Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Feb 20, 2012	14 Day
Phenols (non-Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Feb 20, 2012	14 Day
Metals M8 - Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury	Melbourne	Feb 20, 2012	28 Day

mgt-LabMark Internal Quality Control Review

General

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

Holding Times

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

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

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

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

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

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	< 0.05			0.05	Pass	
Toluene	mg/kg	< 0.05			0.05	Pass	
Ethylbenzene	mg/kg	< 0.05			0.05	Pass	
o-Xylene	mg/kg	< 0.05			0.05	Pass	
Total m+p-Xylenes	mg/kg	< 0.1			0.10	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 0.15			0.15	Pass	
Method Blank							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.05			0.05	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dibromoethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloroethane	mg/kg	< 0.05			0.05	Pass	
1.2-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.05			0.05	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
1.3-Dichloropropane	mg/kg	< 0.05			0.05	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.05			0.05	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.05			0.05	Pass	
2-Butanone (MEK)	mg/kg	< 0.05			0.05	Pass	
2-Propanone (Acetone)	mg/kg	< 0.05			0.05	Pass	
4-Chlorotoluene	mg/kg	< 0.05			0.05	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.05			0.05	Pass	
Allyl chloride	mg/kg	< 0.05			0.05	Pass	
Bromobenzene	mg/kg	< 0.05			0.05	Pass	
Bromochloromethane	mg/kg	< 0.05			0.05	Pass	
Bromodichloromethane	mg/kg	< 0.05			0.05	Pass	
Bromoform	mg/kg	< 0.05			0.05	Pass	
Bromomethane	mg/kg	< 0.05			0.05	Pass	
Carbon disulfide	mg/kg	< 0.05			0.05	Pass	
Carbon Tetrachloride	mg/kg	< 0.05			0.05	Pass	
Chlorobenzene	mg/kg	< 0.05			0.05	Pass	
Chloroethane	mg/kg	< 0.05			0.05	Pass	
Chloroform	mg/kg	< 0.05			0.05	Pass	
Chloromethane	mg/kg	< 0.05			0.05	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Dibromochloromethane	mg/kg	< 0.05			0.05	Pass	
Dibromomethane	mg/kg	< 0.05			0.05	Pass	
Dichlorodifluoromethane	mg/kg	< 0.05			0.05	Pass	
Iodomethane	mg/kg	< 0.05			0.05	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.05			0.05	Pass	
Methylene Chloride	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Styrene	mg/kg	< 0.05			0.05	Pass	
Tetrachloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.05			0.05	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.05			0.05	Pass	
Trichloroethene	mg/kg	< 0.05			0.05	Pass	
Trichlorofluoromethane	mg/kg	< 0.05			0.05	Pass	
Vinyl chloride	mg/kg	< 0.05			0.05	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Total Organic Carbon	mg/kg	< 50			50	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl azinphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Naled	mg/kg	< 0.5			0.5	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	mg/kg	< 5			5	Pass	
1-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
1-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.4-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.3.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2.4.5-Tetrachlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Chloronaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2-Methylnaphthalene	mg/kg	< 0.5			0.5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Naphthylamine	mg/kg	< 0.5			0.5	Pass	
2-Nitroaniline	mg/kg	< 0.5			0.5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2-Picoline	mg/kg	< 0.5			0.5	Pass	
2.3.4.6-Tetrachlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2.4-Dinitrophenol	mg/kg	< 5			5	Pass	
2.4-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
2.4.5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.4.6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2.6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2.6-Dinitrotoluene	mg/kg	< 0.5			0.5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
3-Methylcholanthrene	mg/kg	< 0.5			0.5	Pass	
3.3'-Dichlorobenzidine	mg/kg	< 0.5			0.5	Pass	
4-Aminobiphenyl	mg/kg	< 0.5			0.5	Pass	
4-Bromophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
4-Chlorophenyl phenyl ether	mg/kg	< 0.5			0.5	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
4.4'-DDD	mg/kg	< 0.5			0.5	Pass	
4.4'-DDE	mg/kg	< 0.5			0.5	Pass	
4.4'-DDT	mg/kg	< 0.5			0.5	Pass	
7.12-Dimethylbenz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
a-BHC	mg/kg	< 0.5			0.5	Pass	
Acetophenone	mg/kg	< 0.5			0.5	Pass	
Aldrin	mg/kg	< 0.5			0.5	Pass	
Aniline	mg/kg	< 0.5			0.5	Pass	
b-BHC	mg/kg	< 0.5			0.5	Pass	
Benzyl chloride	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroethoxy)methane	mg/kg	< 0.5			0.5	Pass	
Bis(2-chloroisopropyl)ether	mg/kg	< 0.5			0.5	Pass	
Bis(2-ethylhexyl)phthalate	mg/kg	< 0.5			0.5	Pass	
Butyl benzyl phthalate	mg/kg	< 0.5			0.5	Pass	
d-BHC	mg/kg	< 0.5			0.5	Pass	
Di-n-butyl phthalate	mg/kg	< 0.5			0.5	Pass	
Di-n-octyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.j)acridine	mg/kg	< 0.5			0.5	Pass	
Dibenzofuran	mg/kg	< 0.5			0.5	Pass	
Dieldrin	mg/kg	< 0.5			0.5	Pass	
Diethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethyl phthalate	mg/kg	< 0.5			0.5	Pass	
Dimethylaminoazobenzene	mg/kg	< 0.5			0.5	Pass	
Diphenylamine	mg/kg	< 0.5			0.5	Pass	
Endosulfan I	mg/kg	< 0.5			0.5	Pass	
Endosulfan II	mg/kg	< 0.5			0.5	Pass	
Endosulfan sulphate	mg/kg	< 0.5			0.5	Pass	
Endrin	mg/kg	< 0.5			0.5	Pass	
Endrin aldehyde	mg/kg	< 0.5			0.5	Pass	
Endrin ketone	mg/kg	< 0.5			0.5	Pass	
g-BHC (Lindane)	mg/kg	< 0.5			0.5	Pass	
Heptachlor	mg/kg	< 0.5			0.5	Pass	
Heptachlor epoxide	mg/kg	< 0.5			0.5	Pass	
Hexachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Hexachlorobutadiene	mg/kg	< 0.5			0.5	Pass	
Hexachlorocyclopentadiene	mg/kg	< 0.5			0.5	Pass	
Hexachloroethane	mg/kg	< 0.5			0.5	Pass	
Methoxychlor	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodibutylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosodipropylamine	mg/kg	< 0.5			0.5	Pass	
N-Nitrosopiperidine	mg/kg	< 0.5			0.5	Pass	
Nitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachloronitrobenzene	mg/kg	< 0.5			0.5	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenol	mg/kg	< 0.5			0.5	Pass	
Pronamide	mg/kg	< 0.5			0.5	Pass	
Trifluralin	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
Tetrachlorophenols - Total	mg/kg	< 5			5.0	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	mg/kg	< 20			20	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	89			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	90			70-130	Pass	
Toluene	%	102			70-130	Pass	
Ethylbenzene	%	94			70-130	Pass	
Total m+p-Xylenes	%	77			70-130	Pass	
Xylenes(ortho.meta and para)	%	76			70-130	Pass	
LCS - % Recovery							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by GCMS							
1.1-Dichloroethene	%	89			70-130	Pass	
1.2-Dichloroethane	%	94			70-130	Pass	
Carbon Tetrachloride	%	80			70-130	Pass	
Trichloroethene	%	75			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	89			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	86			70-130	Pass	
Acenaphthylene	%	122			70-130	Pass	
Anthracene	%	129			70-130	Pass	
Benz(a)anthracene	%	94			70-130	Pass	
Benzo(a)pyrene	%	102			70-130	Pass	
Benzo(b)fluoranthene	%	113			70-130	Pass	
Benzo(g.h.i)perylene	%	109			70-130	Pass	
Benzo(k)fluoranthene	%	119			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	%	103			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	
Fluoranthene	%	101			70-130	Pass	
Fluorene	%	123			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	101			70-130	Pass	
Naphthalene	%	118			70-130	Pass	
Phenanthrene	%	115			70-130	Pass	
Pyrene	%	79			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	73			70-130	Pass	
4.4'-DDE	%	83			70-130	Pass	
4.4'-DDT	%	82			70-130	Pass	
a-BHC	%	94			70-130	Pass	
Aldrin	%	81			70-130	Pass	
b-BHC	%	87			70-130	Pass	
d-BHC	%	96			70-130	Pass	
Dieldrin	%	80			70-130	Pass	
Endosulfan I	%	85			70-130	Pass	
Endosulfan II	%	79			70-130	Pass	
Endosulfan sulphate	%	74			70-130	Pass	
Endrin	%	77			70-130	Pass	
Endrin aldehyde	%	83			70-130	Pass	
Endrin ketone	%	84			70-130	Pass	
g-BHC (Lindane)	%	90			70-130	Pass	
Heptachlor	%	73			70-130	Pass	
Heptachlor epoxide	%	82			70-130	Pass	
Hexachlorobenzene	%	101			70-130	Pass	
Methoxychlor	%	79			70-130	Pass	
LCS - % Recovery							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Diazinon	%	70			70-130	Pass	
Ethion	%	116			70-130	Pass	
Fenitrothion	%	124			70-130	Pass	
Methyl parathion	%	129			70-130	Pass	
Mevinphos	%	130			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	103			70-130	Pass	
LCS - % Recovery							
Semivolatile Organics USEPA 8270 Semivolatile Organics							
2-Methyl-4.6-dinitrophenol	%	101			30-130	Pass	
1.2.4-Trichlorobenzene	%	86			70-130	Pass	
2-Chlorophenol	%	84			30-130	Pass	
2-Methylphenol (o-Cresol)	%	101			30-130	Pass	
2-Nitrophenol	%	103			30-130	Pass	
2.4-Dichlorophenol	%	103			30-130	Pass	
2.4-Dimethylphenol	%	103			30-130	Pass	
2.4-Dinitrophenol	%	127			30-130	Pass	
2.4.5-Trichlorophenol	%	110			30-130	Pass	
2.4.6-Trichlorophenol	%	125			30-130	Pass	
2.6-Dichlorophenol	%	104			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	99			30-130	Pass	
4-Chloro-3-methylphenol	%	77			30-130	Pass	
4-Nitrophenol	%	54			30-130	Pass	
Pentachlorophenol	%	65			30-130	Pass	
Phenol	%	84			30-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4.6-dinitrophenol	%	80			30-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	89			70-130	Pass	
LCS - % Recovery							
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	%	93			80-120	Pass	
Cadmium	%	89			80-120	Pass	
Chromium	%	97			80-120	Pass	
Copper	%	94			80-120	Pass	
Lead	%	99			80-120	Pass	
Mercury	%	106			75-125	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	103			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	A12-Fe10407	NCP	%	92			70-130	Pass	
TRH C10-C14	M12-Fe11425	CP	%	93			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	A12-Fe10407	NCP	%	91			70-130	Pass	
Toluene	A12-Fe10407	NCP	%	98			70-130	Pass	
Ethylbenzene	A12-Fe10407	NCP	%	91			70-130	Pass	
o-Xylene	A12-Fe10407	NCP	%	76			70-130	Pass	
Total m+p-Xylenes	A12-Fe10407	NCP	%	76			70-130	Pass	
Xylenes(ortho.meta and para)	A12-Fe10407	NCP	%	76			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethene	M12-Fe09169	NCP	%	95			70-130	Pass	
1.1.1-Trichloroethane	M12-Fe09169	NCP	%	88			70-130	Pass	
1.2-Dichlorobenzene	M12-Fe09169	NCP	%	102			70-130	Pass	
1.2-Dichloroethane	M12-Fe09169	NCP	%	96			70-130	Pass	
Carbon Tetrachloride	M12-Fe09169	NCP	%	85			70-130	Pass	
Trichloroethene	M12-Fe09169	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	A12-Fe10407	NCP	%	92			70-130	Pass	
TRH >C10-C16	M12-Fe11425	CP	%	93			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	M12-Fe11425	CP	%	87			70-130	Pass	
Acenaphthylene	B12-Fe09094	NCP	%	102			70-130	Pass	
Anthracene	B12-Fe09094	NCP	%	99			70-130	Pass	
Benz(a)anthracene	B12-Fe09094	NCP	%	97			70-130	Pass	
Benzo(a)pyrene	B12-Fe09094	NCP	%	103			70-130	Pass	
Benzo(b)fluoranthene	B12-Fe09094	NCP	%	97			70-130	Pass	
Benzo(g.h.i)perylene	B12-Fe09094	NCP	%	108			70-130	Pass	
Benzo(k)fluoranthene	B12-Fe09094	NCP	%	107			70-130	Pass	
Chrysene	B12-Fe09094	NCP	%	93			70-130	Pass	
Dibenz(a.h)anthracene	B12-Fe09094	NCP	%	99			70-130	Pass	
Fluoranthene	B12-Fe09094	NCP	%	101			70-130	Pass	
Fluorene	B12-Fe09094	NCP	%	105			70-130	Pass	
Indeno(1.2.3-cd)pyrene	B12-Fe09094	NCP	%	104			70-130	Pass	
Naphthalene	B12-Fe09094	NCP	%	100			70-130	Pass	
Phenanthrene	B12-Fe09094	NCP	%	102			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Pyrene	M12-Fe11425	CP	%	84			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M12-Fe11425	CP	%	117			70-130	Pass	
4.4'-DDE	M12-Fe11425	CP	%	101			70-130	Pass	
4.4'-DDT	M12-Fe11425	CP	%	99			70-130	Pass	
a-BHC	M12-Fe11425	CP	%	113			70-130	Pass	
Aldrin	M12-Fe11425	CP	%	99			70-130	Pass	
b-BHC	M12-Fe11425	CP	%	104			70-130	Pass	
d-BHC	M12-Fe11425	CP	%	117			70-130	Pass	
Dieldrin	M12-Fe11425	CP	%	94			70-130	Pass	
Endosulfan I	M12-Fe11425	CP	%	105			70-130	Pass	
Endosulfan II	M12-Fe11425	CP	%	126			70-130	Pass	
Endosulfan sulphate	M12-Fe11425	CP	%	86			70-130	Pass	
Endrin	M12-Fe11425	CP	%	93			70-130	Pass	
Endrin aldehyde	M12-Fe11425	CP	%	92			70-130	Pass	
Endrin ketone	M12-Fe11425	CP	%	102			70-130	Pass	
g-BHC (Lindane)	M12-Fe11425	CP	%	107			70-130	Pass	
Heptachlor	M12-Fe11425	CP	%	94			70-130	Pass	
Heptachlor epoxide	M12-Fe11425	CP	%	93			70-130	Pass	
Hexachlorobenzene	M12-Fe11425	CP	%	126			70-130	Pass	
Methoxychlor	M12-Fe11425	CP	%	80			70-130	Pass	
Spike - % Recovery									
Organophosphorous Pesticides				Result 1					
Diazinon	M12-Fe11425	CP	%	93			70-130	Pass	
Ethion	M12-Fe11425	CP	%	78			70-130	Pass	
Fenitrothion	M12-Fe11425	CP	%	103			70-130	Pass	
Methyl parathion	M12-Fe11425	CP	%	103			70-130	Pass	
Mevinphos	M12-Fe11425	CP	%	126			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1260	M12-Fe11425	CP	%	86			70-130	Pass	
Spike - % Recovery									
Semivolatile Organics				Result 1					
2-Methyl-4.6-dinitrophenol	B12-Fe09094	NCP	%	85			30-130	Pass	
1.2.4-Trichlorobenzene	M12-Fe11425	CP	%	86			70-130	Pass	
1.4-Dichlorobenzene	M12-Fe11425	CP	%	82			70-130	Pass	
2-Chlorophenol	M12-Fe11425	CP	%	93			30-130	Pass	
2-Methylphenol (o-Cresol)	B12-Fe09094	NCP	%	91			30-130	Pass	
2-Nitrophenol	B12-Fe09094	NCP	%	101			30-130	Pass	
2.4-Dichlorophenol	B12-Fe09094	NCP	%	99			30-130	Pass	
2.4-Dimethylphenol	B12-Fe09094	NCP	%	75			30-130	Pass	
2.4-Dinitrophenol	B12-Fe09094	NCP	%	50			30-130	Pass	
2.4-Dinitrotoluene	M12-Fe11425	CP	%	94			70-130	Pass	
2.4.5-Trichlorophenol	B12-Fe09094	NCP	%	99			30-130	Pass	
2.4.6-Trichlorophenol	B12-Fe09094	NCP	%	128			30-130	Pass	
2.6-Dichlorophenol	B12-Fe09094	NCP	%	99			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	B12-Fe09094	NCP	%	88			30-130	Pass	
4-Chloro-3-methylphenol	M12-Fe11425	CP	%	86			30-130	Pass	
4-Nitrophenol	M12-Fe11425	CP	%	58			30-130	Pass	
N-Nitrosodipropylamine	M12-Fe11425	CP	%	86			70-130	Pass	
Pentachlorophenol	M12-Fe11425	CP	%	104			30-130	Pass	
Phenol	M12-Fe11425	CP	%	90			30-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
Tetrachlorophenols - Total	B12-Fe09094	NCP	%	102			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	B12-Fe09094	NCP	%	97			30-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dinoseb	B12-Fe09094	NCP	%	112			30-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	A12-Fe10407	NCP	%	92			70-130	Pass	
TRH >C10-C16	M12-Fe11425	CP	%	93			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	M12-Fe11663	NCP	%	89			75-125	Pass	
Cadmium	M12-Fe11425	CP	%	75			75-125	Pass	
Chromium	M12-Fe11425	CP	%	80			75-125	Pass	
Copper	M12-Fe11425	CP	%	82			75-125	Pass	
Lead	M12-Fe11425	CP	%	77			75-125	Pass	
Mercury	M12-Fe11425	CP	%	95			70-130	Pass	
Nickel	M12-Fe11663	NCP	%	75			75-125	Pass	
Zinc	M12-Fe11425	CP	%	77			75-125	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M12-Fe10099	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M12-Fe11425	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M12-Fe11425	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M12-Fe11425	CP	mg/kg	< 50	< 50	1.4	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toluene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Ethylbenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
o-Xylene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Total m+p-Xylenes	M12-Fe11663	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes(ortho.meta and para)	M12-Fe11663	NCP	mg/kg	< 0.15	< 0.15	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1-Dichloroethene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1-Trichloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2-Trichloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dibromoethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2-Dichloropropane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.3-Trichloropropane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.2.4-Trimethylbenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3-Dichloropropane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.3.5-Trimethylbenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Butanone (MEK)	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
2-Propanone (Acetone)	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Chlorotoluene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Allyl chloride	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromobenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromochloromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromodichloromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromoform	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Bromomethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon disulfide	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Carbon Tetrachloride	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chlorobenzene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloroform	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chloromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.2-Dichloroethene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
cis-1.3-Dichloropropene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromochloromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dibromomethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dichlorodifluoromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Iodomethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Isopropyl benzene (Cumene)	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methylene Chloride	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Styrene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Tetrachloroethene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.2-Dichloroethene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
trans-1.3-Dichloropropene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichloroethene	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Trichlorofluoromethane	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Vinyl chloride	M12-Fe11663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-Fe10120	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-Fe11663	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-Fe11425	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M12-Fe11425	CP	mg/kg	< 100	< 100	2.0	30%	Pass	
TRH >C34-C40	M12-Fe11425	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Organic Carbon	M12-Fe09217	NCP	mg/kg	3700	4100	11	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b)fluoranthene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M12-Fe11425	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Organophosphorous Pesticides				Result 1	Result 2	RPD			
Bolstar	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Chlorpyrifos	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Demeton-O	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Diazinon	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Dichlorvos	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Disulfoton	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ethoprop	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenitrothion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fensulfothion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Fenthion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Merphos	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl azinphos	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Methyl parathion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Mevinphos	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Naled	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phorate	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Ronnel	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Tokuthion	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Trichloronate	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Semivolatile Organics				Result 1	Result 2	RPD			
2-Methyl-4.6-dinitrophenol	M12-Fe11425	CP	mg/kg	< 5	< 5	<1	30%	Pass	
1-Chloronaphthalene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1-Naphthylamine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.4-Tetrachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3.5-Tetrachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4.5-Tetrachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chloronaphthalene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Chlorophenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
2-Methylnaphthalene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Methylphenol (o-Cresol)	M12-Fe11425	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
2-Naphthylamine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitroaniline	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Nitrophenol	M12-Fe11425	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2-Picoline	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.3.4.6-Tetrachlorophenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dichlorophenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dimethylphenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4-Dinitrophenol	M12-Fe11425	CP	mg/kg	< 5	< 5	<1	30%	Pass	
2.4-Dinitrotoluene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.4.5-Trichlorophenol	M12-Fe11425	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.4.6-Trichlorophenol	M12-Fe11425	CP	mg/kg	< 1	< 1	<1	30%	Pass	
2.6-Dichlorophenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2.6-Dinitrotoluene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M12-Fe11425	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
3-Methylcholanthrene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
3.3'-Dichlorobenzidine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Aminobiphenyl	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Bromophenyl phenyl ether	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chloro-3-methylphenol	M12-Fe11425	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4-Chlorophenyl phenyl ether	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Nitrophenol	M12-Fe11425	CP	mg/kg	< 5	< 5	<1	30%	Pass	
4.4'-DDD	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
7.12-Dimethylbenz(a)anthracene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-BHC	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acetophenone	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aniline	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-BHC	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzyl chloride	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroethoxy)methane	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-chloroisopropyl)ether	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bis(2-ethylhexyl)phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Butyl benzyl phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-BHC	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-butyl phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Di-n-octyl phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.j)acridine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenzofuran	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diethyl phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethyl phthalate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethylaminoazobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diphenylamine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-BHC (Lindane)	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobutadiene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorocyclopentadiene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Hexachloroethane	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodibutylamine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosodipropylamine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
N-Nitrosopiperidine	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Nitrobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachloronitrobenzene	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pentachlorophenol	M12-Fe11425	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Phenol	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pronamide	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trifluralin	M12-Fe11425	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
Tetrachlorophenols - Total	M12-Fe11425	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	M12-Fe11425	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Dinoseb	M12-Fe11425	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-Fe10120	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-Fe11663	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-Fe11425	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M12-Fe11425	CP	mg/kg	< 100	< 100	2.0	30%	Pass	
TRH >C34-C40	M12-Fe11425	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	M12-Fe11425	CP	mg/kg	4.0	5.6	33	30%	Fail	Q15
Cadmium	M12-Fe11425	CP	mg/kg	< 0.4	0.5	48	30%	Fail	Q15
Chromium	M12-Fe11425	CP	mg/kg	32	46	35	30%	Fail	Q15
Copper	M12-Fe11425	CP	mg/kg	6.3	6.9	9.0	30%	Pass	
Lead	M12-Fe11425	CP	mg/kg	12	14	20	30%	Pass	
Mercury	M12-Fe11425	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	M12-Fe11425	CP	mg/kg	9.7	11	9.0	30%	Pass	
Zinc	M12-Fe11425	CP	mg/kg	14	14	4.0	30%	Pass	

Comments

Please note: Perchlorate analysed at Leeder. Report reference M120317.

Please note1: PFOS/PFOA analysed at AsureQuality. Report Reference 107264

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	N/A
Samples received within HoldingTime	Yes
Some samples have been subcontracted	Yes

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Adrian Tabacchiera	Client Services
Carroll Lee	Senior Analyst-Volatile (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Mary Makarios	Senior Analyst-Metal (VIC)
Orlando Scalzo	Senior Analyst-Organic (VIC)

Michael Wright
National Technical Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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ANALYTICAL RESULTS SHEET

EP-072

Volatile Scan for Unknowns

(20 Largest Peaks > LOR)

Batch No.: EM1201357 Units : ug/L

Sample I.D. : 1 Analyst GW

Client I.D. : SW1-1051/6001 Initials:

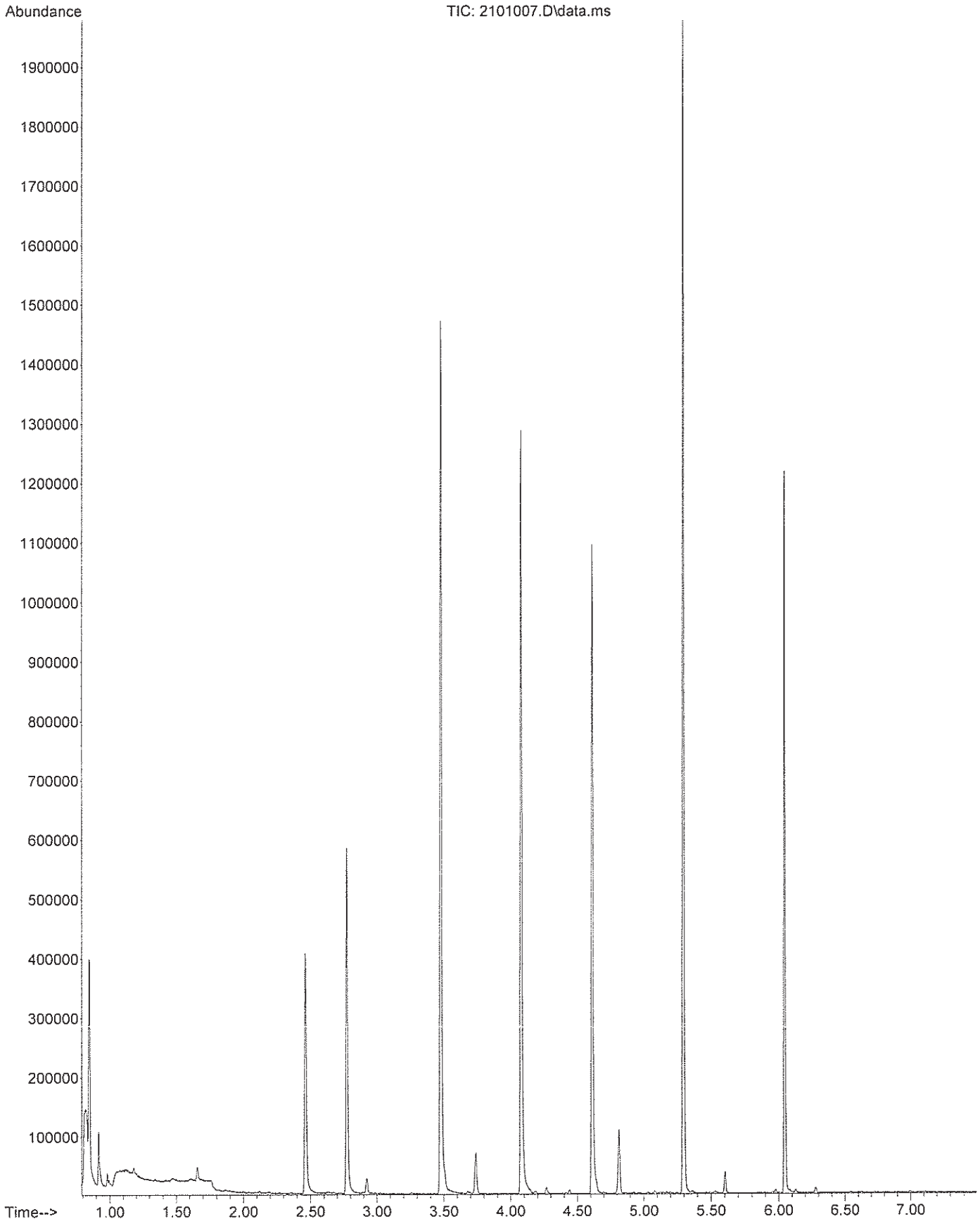
Matrix : Water Extract Dilution : 1: 1

	Retention Time (min)	Unknown Match Quality (%)	COMPOUND tentatively identified from Library Search (NBS49K)	Compound Area	Estimated Amount	IS #
	NO VOC COMPOUNDS DETECTED ABOVE LOR					

1) The "Unknown Match Quality" is a value representing the probability that the unknown is correctly identified from a reference spectrum. An N/A in this field indicates that a generalized compound catagory has been inserted due to low spectra matches.
2) The estimated concentration is based on an assumed 1:1 response ratio with the closest eluting Internal Standard.
3) The level of reporting (LOR) is equal to one tenth of the concentration of the associated internal standard, which is equivalent to 5 ug/L.

IS #	R.T.	Internal Standard	Area	Amount ng/uL
1	2.77	1,4-Difluorobenzene	521294	50
2	4.08	Chlorobenzene-d5	1122866	50
3	5.30	1,4-Dichlorobenzene-d4	1422460	50
4	6.05	Napthalene-d8	838492	50

File :C:\msdchem\1\DATA\2566506\2101007.D
Operator : GW
Acquired : 14 Feb 2012 5:00 pm using AcqMethod FASTVOC.M
Instrument : VO5
Sample Name: 2566506_03
Misc Info : EM1201357-001
Vial Number: 21



ANALYTICAL RESULTS SHEET

EP-072

Volatile Scan for Unknowns

(20 Largest Peaks > LOR)

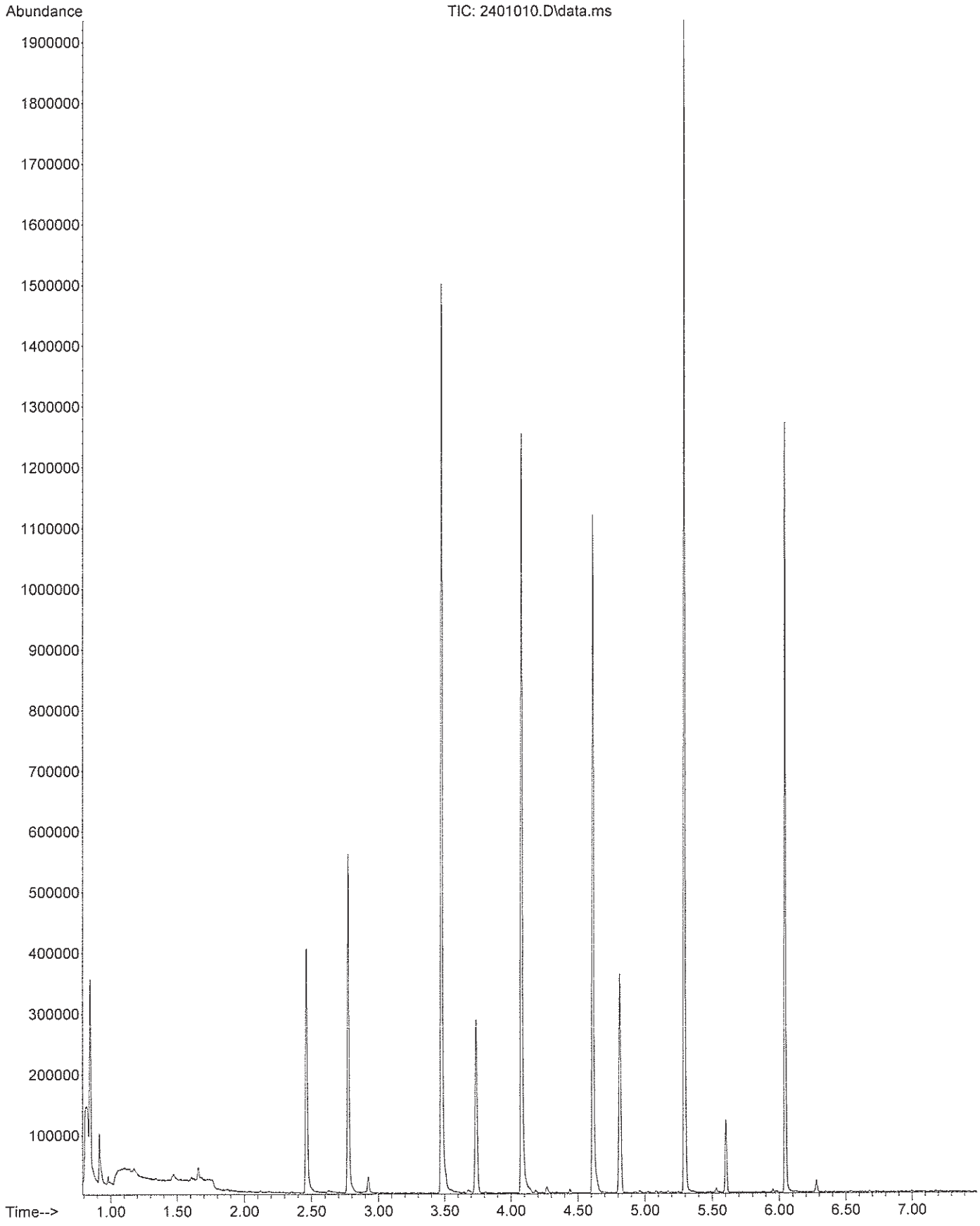
Batch No.:	EM1201357	Units : ug/L	
Sample I.D. :	2	Analyst	GW
Client I.D. :	SW2-1052/6002	Initials:	
Matrix : Water		Extract Dilution :	1: 1

	Retention Time (min)	Unknown Match Quality (%)	COMPOUND tentatively identified from Library Search (NBS49K)	Compound Area	Estimated Amount	IS #
	NO VOC COMPOUNDS DETECTED ABOVE LOR					

1) The "Unknown Match Quality" is a value representing the probability that the unknown is correctly identified from a reference spectrum. An N/A in this field indicates that a generalized compound catagory has been inserted due to low spectra matches.
2) The estimated concentration is based on an assumed 1:1 response ratio with the closest eluting Internal Standard.
3) The level of reporting (LOR) is equal to one tenth of the concentration of the associated internal standard, which is equivalent to 5 ug/L.

IS #	R.T.	Internal Standard	Area	Amount ng/uL
1	2.77	1,4-Difluorobenzene	499709	50
2	4.08	Chlorobenzene-d5	1111792	50
3	5.30	1,4-Dichlorobenzene-d4	1405159	50
4	6.05	Napthalene-d8	839582	50

File :C:\msdchem\1\DATA\2566506\2401010.D
Operator : GW
Acquired : 14 Feb 2012 5:52 pm using AcqMethod FASTVOC.M
Instrument : VO5
Sample Name: 2566506_06
Misc Info : EM1201357-002
Vial Number: 24



ANALYTICAL RESULTS SHEET

EP-072

Volatile Scan for Unknowns

(20 Largest Peaks > LOR)

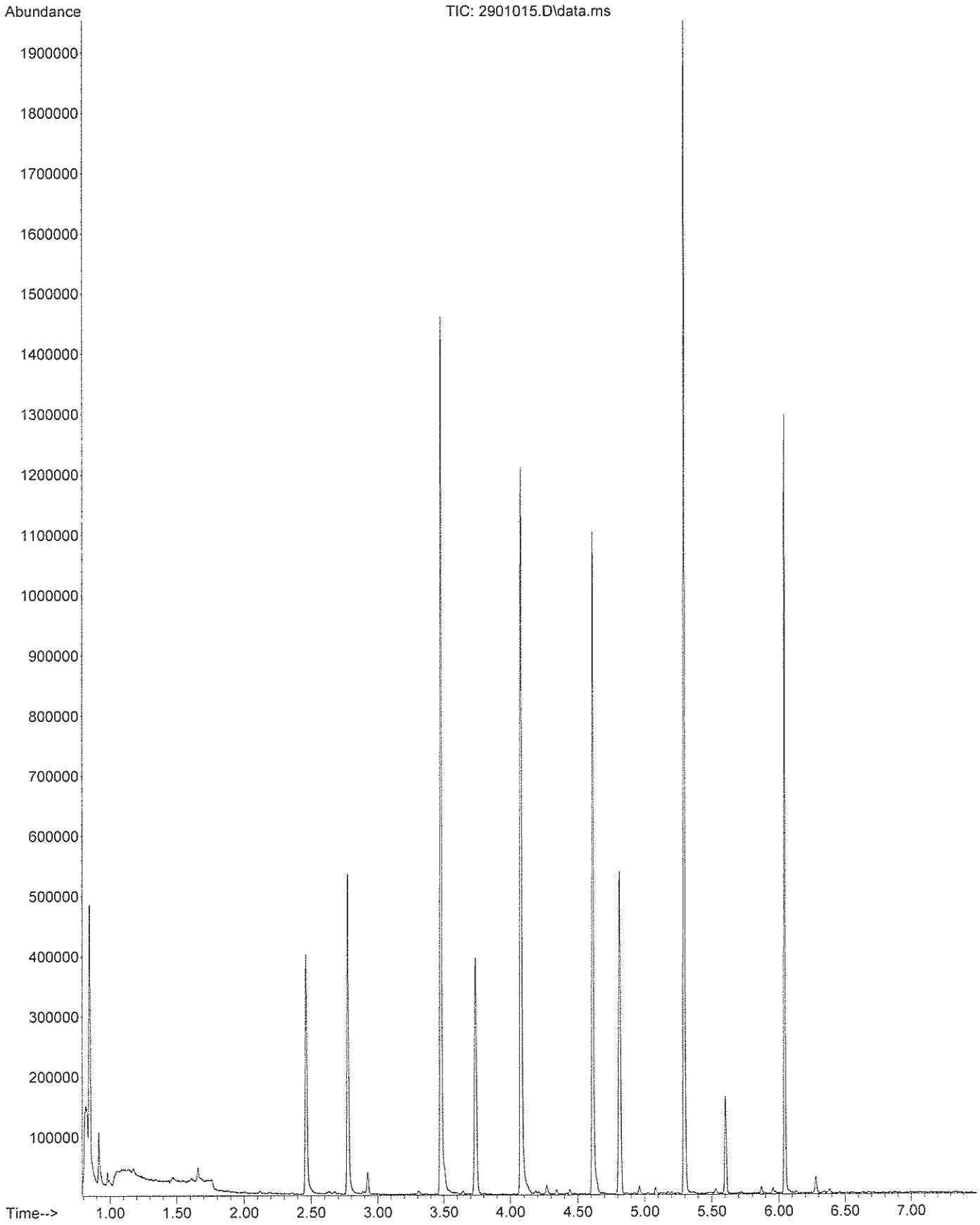
Batch No.:	EM1201357	Units : ug/L	
Sample I.D. :	3	Analyst	GW
Client I.D. :	SW3-1043/6003	Initials:	
Matrix : Water		Extract Dilution :	1: 1

	Retention Time (min)	Unknown Match Quality (%)	COMPOUND tentatively identified from Library Search (NBS49K)	Compound Area	Estimated Amount	IS #
	NO VOC COMPOUNDS DETECTED ABOVE LOR					

1) The "Unknown Match Quality" is a value representing the probability that the unknown is correctly identified from a reference spectrum. An N/A in this field indicates that a generalized compound catagory has been inserted due to low spectra matches.
2) The estimated concentration is based on an assumed 1:1 response ratio with the closest eluting Internal Standard.
3) The level of reporting (LOR) is equal to one tenth of the concentration of the associated internal standard, which is equivalent to 5 ug/L.

IS #	R.T.	Internal Standard	Area	Amount ng/uL
1	2.77	1,4-Difluorobenzene	504614	50
2	4.08	Chlorobenzene-d5	1100147	50
3	5.30	1,4-Dichlorobenzene-d4	1382250	50
4	6.05	Napthalene-d8	849799	50

File :C:\msdchem\1\DATA\2566506\2901015.D
Operator : GW
Acquired : 14 Feb 2012 7:20 pm using AcqMethod FASTVOC.M
Instrument : VO5
Sample Name: 2566506_08
Misc Info : EM1201357-003
Vial Number: 29



ANALYTICAL RESULTS SHEET

EP-072

Volatile Scan for Unknowns

(20 Largest Peaks > LOR)

Batch No.: EM1201357 Units : ug/L

Sample I.D. : 5 Analyst GW

Client I.D. : SW5-1025/6005 Initials:

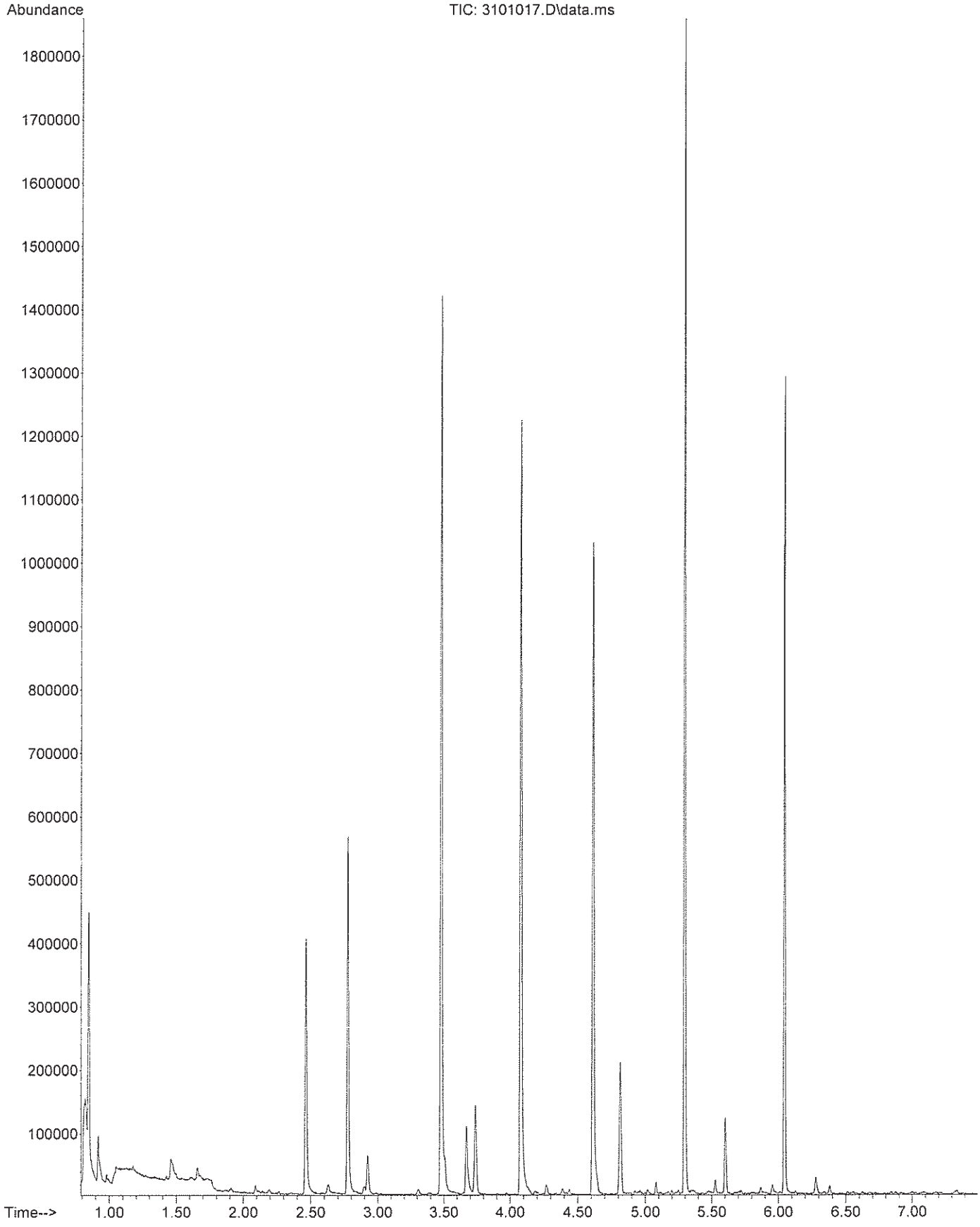
Matrix : Water Extract Dilution : 1: 1

	Retention Time (min)	Unknown Match Quality (%)	COMPOUND tentatively identified from Library Search (NBS49K)	Compound Area	Estimated Amount	IS #
1	3.67	90	Hexanal	131327	6.04	2

1) The "Unknown Match Quality" is a value representing the probability that the unknown is correctly identified from a reference spectrum. An N/A in this field indicates that a generalized compound catagory has been inserted due to low spectra matches.
2) The estimated concentration is based on an assumed 1:1 response ratio with the closest eluting Internal Standard.
3) The level of reporting (LOR) is equal to one tenth of the concentration of the associated internal standard, which is equivalent to 5 ug/L.

IS #	R.T.	Internal Standard	Area	Amount ng/uL
1	2.77	1,4-Difluorobenzene	496288	50
2	4.08	Chlorobenzene-d5	1087626	50
3	5.30	1,4-Dichlorobenzene-d4	1350296	50
4	6.05	Napthalene-d8	864205	50

File :C:\msdchem\1\DATA\2566506\3101017.D
Operator : GW
Acquired : 14 Feb 2012 7:55 pm using AcqMethod FASTVOC.M
Instrument : VO5
Sample Name: 2566506_10
Misc Info : EM1201357-005
Vial Number: 31



ANALYTICAL RESULTS SHEET

EP-072

Volatile Scan for Unknowns

(20 Largest Peaks > LOR)

Batch No.: EM1201357 Units : ug/L

Sample I.D. : 6 Analyst GW

Client I.D. : SW6-1016/6006 Initials:

Matrix : Water Extract Dilution : 1: 1

	Retention Time (min)	Unknown Match Quality (%)	COMPOUND tentatively identified from Library Search (NBS49K)	Compound Area	Estimated Amount	IS #
1	2.63	70	Cyclohexane	64595	5.88	1
2	6.26	96	Tridecane	152246	7.92	4
3	6.68	91	Tetradecane	116911	6.08	4
4	7.18	87	Eicosane	121527	6.32	4

1) The "Unknown Match Quality" is a value representing the probability that the unknown is correctly identified from a reference spectrum. An N/A in this field indicates that a generalized compound catagory has been inserted due to low spectra matches.
2) The estimated concentration is based on an assumed 1:1 response ratio with the closest eluting Internal Standard.
3) The level of reporting (LOR) is equal to one tenth of the concentration of the associated internal standard, which is equivalent to 5 ug/L.

IS #	R.T.	Internal Standard	Area	Amount ng/uL
1	2.77	1,4-Difluorobenzene	549244	50
2	4.08	Chlorobenzene-d5	1249688	50
3	5.30	1,4-Dichlorobenzene-d4	1538511	50
4	6.05	Napthalene-d8	961675	50

File :C:\msdchem\1\DATA\2566506\3201018.D
Operator : GW
Acquired : 14 Feb 2012 8:12 pm using AcqMethod FASTVOC.M
Instrument : VO5
Sample Name: 2566506_11
Misc Info : EM1201357-006
Vial Number: 32